

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER 2. GOVT ACTES MAY TO SELECT STATE OF THE SELECT SELECT STATE OF THE SELECT S	BEFORE COMPLETING FORM B. RECIPIENT'S CATALOG NUMBER
Water Resources Investigation Cape Girardeau-	5. TYPE OF REPORT & PERIOD COVERED
Jackson Metropolitan Area, Missouri	Survey Report
Vol.3 - Plates	6. PERFORMING ORG. REPORT NUMBER
AUTHOR(e)	8. CONTRACT OR GRANT NUMBER(*)
	-
D. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. Army Engineer District, St. Louis 210 Tucker Boulevard, North St. Louis, MO 63101	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
1. CONTROLLING OFFICE NAME AND ADDRESS	12. REPORT DATE
•	December 1983
	13. NUMBER OF PAGES
14. MONITORING AGENCY NAME & ADDRESS(If different from Controlling Office)	121 15. SECURITY CLASS. (of this report)
	UNCLASSIFIED
	15a, DECLASSIFICATION/DOWNGRADING SCHEDULE
7. DISTRIBUTION STATEMENT (of the ebetrect entered in Block 20, if different fro	on Report)
6. SUPPLEMENTARY NOTES	
9. KEY WORDS (Continue on reverse side if necessary and identify by block number,	
Studies of a 210-square mile area including the Cometropolitan areas are addressed in this report. Cape La Croix Creek and Walker Branch in the City area of 21.4 square miles) is addressed by the Re-	ape Girardeau-Jackson, Misson The problem of flooding alon of Cape Girardeau (drainage

Flood control improvements for the remainder of the study area, including the city of Jackson and the rural area along the Little River Diversion Channel,

DD 1 JAN 73 1473 EDITION OF 1 NOV 68 IS OBSOLETE

are not economically justified at this time. -

UNCLASSIFIED

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Date Entered)

20. (Continued)

The Recommended Plan has widespread public support; it reduces the total average annual flood damages by about 85%; and addresses the environmental and outdoor recreational needs. With implementation of the Recommended Plan of improvements the flood damages normally expected to result from a 500-year flood (this is a flood having a 0.2 percent chance of occurring in any one particular year) would be reduced by about 61 percent. Some 263 existing structures subject to flooding will have full 100-year flood protection with 44 additional structures receiving partial protection. Average annual tangible benefits divided by average annual costs yield a benefit-to-cost ratio of 1.7 to 1, based on 8-1/8 percent interest and October 1983 price levels.

The Recommended Plan of improvements is estimated to cost \$25,900,000 based on October 1983 price levels. Under existing laws and cost sharing procedures these costs would be shared \$20,700,000 Federal and \$5,200,000 non-Federal sponsor. In addition, the local sponsor would be responsible for all operation and maintenance costs currently estimated to be about \$58,100 annually, plus \$45,700 annual major replacement costs, totalling \$103,800 annually. The Cape La Croix Creek and Walker Branch Levee and Drainage District is the local sponsor. No mitigation would be required by the implementation of the Recommended Plan and no unresolved environmental or other issues are known to exist.

CAPE GIRARDEAU-JACKSON METROPOLITAN AREA, MISSOURI

SURVEY REPORT

VOLUME THREE - PLATES

Acces	sion For	,		
NTIS	GRA&I	M		
DTIC :	TAB		1	
Unann	ounced			
Justi	fication	L		
	ibution/			
	Avail a	nd/or	-/	3 . A
Dist	Specia		V	8 6.
A-I				

*Original common at color property of the color of the co

LIST OF PLATES

NO.	TITLE
A-1	Study Area
A-2	Southeast Missouri Regional Planning Commission Area
D-1	Cape La Croix Creek Watershed
D-2	Isohyet Pattern, 26-27 May 1973 Storm
D-3	Isohyet Pattern, 27-28 March 1977 Storm
D-4	HEC-1 Schematic
D-5 thru	
D-12	Typical X-Sections, Cape La Croix Creek and Walker Branch
D-13	Runoff Hydrographs, 26-27 Mr 1973 Storm, Cape La Croix Creek
D-14	Runoff Hydrographs, 26-27 May 1973 Storm, Walker Branch
D-15	Runoff Hydrographs, 27-28 March 1977 Storm, Cape La Croix Creek
D-16	Runoff Hydaographs, 27-28 March 1977 Storm, Walker Branch
D-17	Water Surface Profiles, May 1973 and March 1977 Floods, Cape La Croix Creek
D-18	Water Surface Profiles, May 1973 and March 1977 Floods, Walker Branch
D-19, D-20	Water Surface Profiles, Future Conditions Without Project, Cape La Croix Creek
D-21	Water Surface Profiles, Future Conditions Without Project, Walker Branch
D-22 thru	
D-32	Flooded Area Maps, Future Conditions Without Project
D-33	Dry Detention Reservoir Sites
D-34 thru	
D-39	Standard Project Flood Hydrographs

LIST OF PLATES (continued)

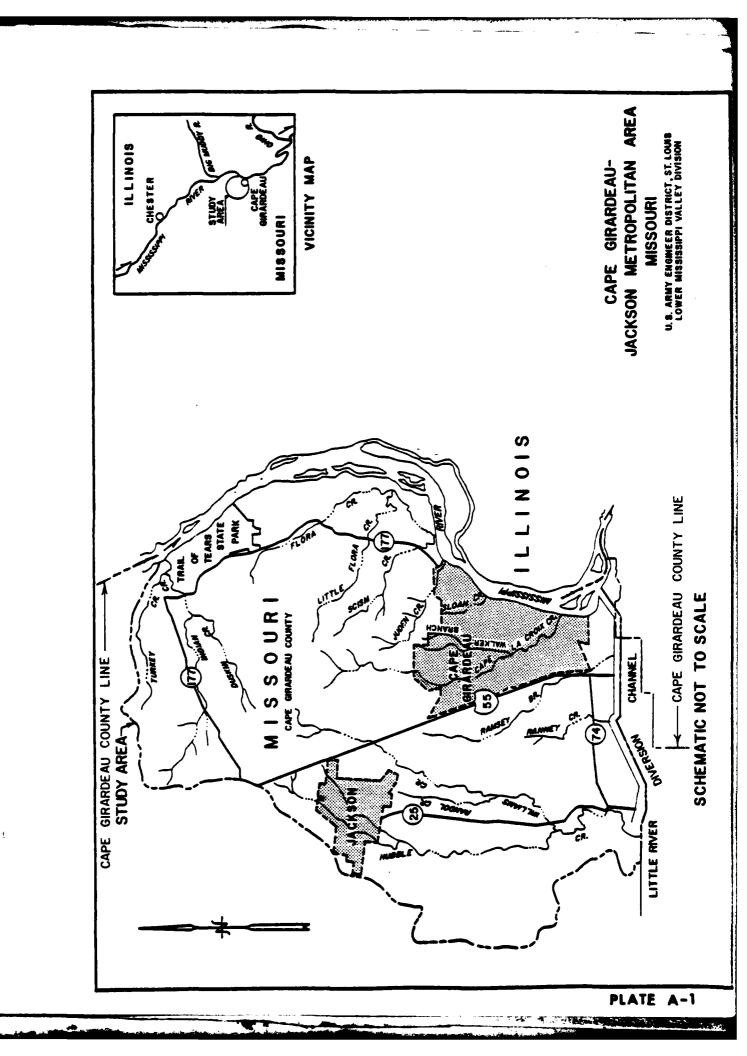
NO.	TITLE
D-40 thru	
D-45	Discharge Hydrographs, SPF Plan
D-46 thru	
D-51	Discharge Frequency Curves, SPF Plan
D-52, D-53	Water Surface Profiles, SPF Plan, Cape La Croix Creek
D-54	Water Surface Profiles, SPF Plan Walker Branch
D-55	Storage Elevation Curve, Dry Detention Reservoir No. 1
D-56 thru	
D-61	Discharge Hydrographs, Recommended Plan
D-62 thru	
D-67	Discharge Frequency Curves, Recommended Plan
D-68, D-69	Water Surface Profiles, Recommended Plan, Cape La Croix Creek
D-70	Water Surface Profiles, Recommended Plan, Walker Branch
D-71 thru	
D-76	Stage Frequency Curves, Recommended Plan
D-77 thru	
D-87	Flooded Area Maps, Recommended Plan
D-88, D-89	Water Surface Profiles, Cape La Croix Creek, PLAN A or EQ PLAN
D-90	Water Surface Profiles, Walker Branch, PLAN A or EQ PLAN

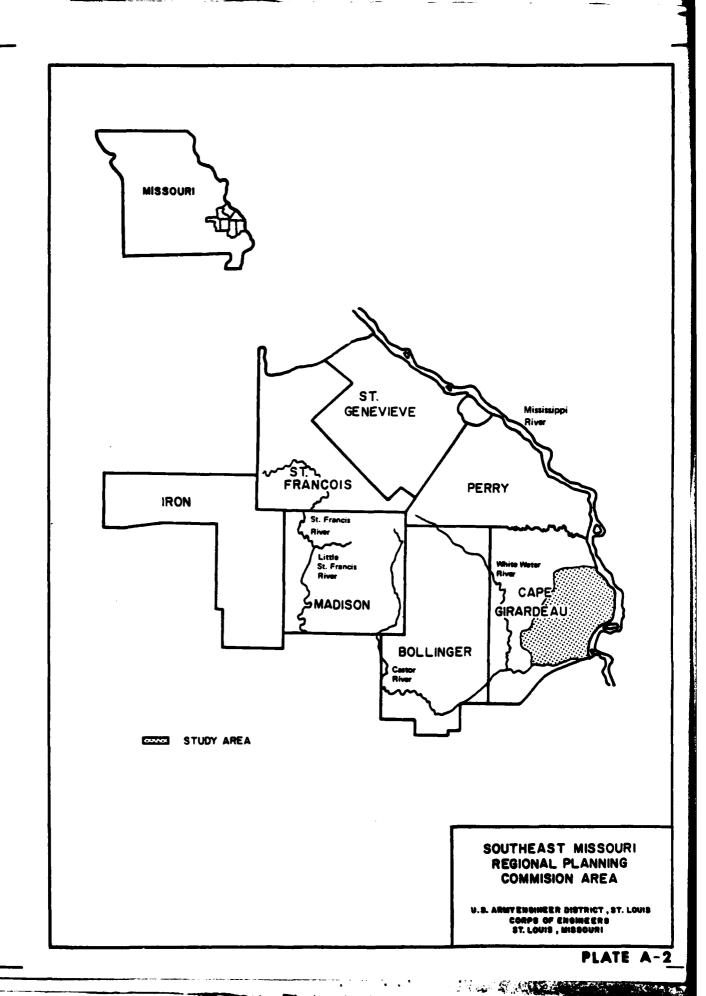
LIST OF PLATES (continued)

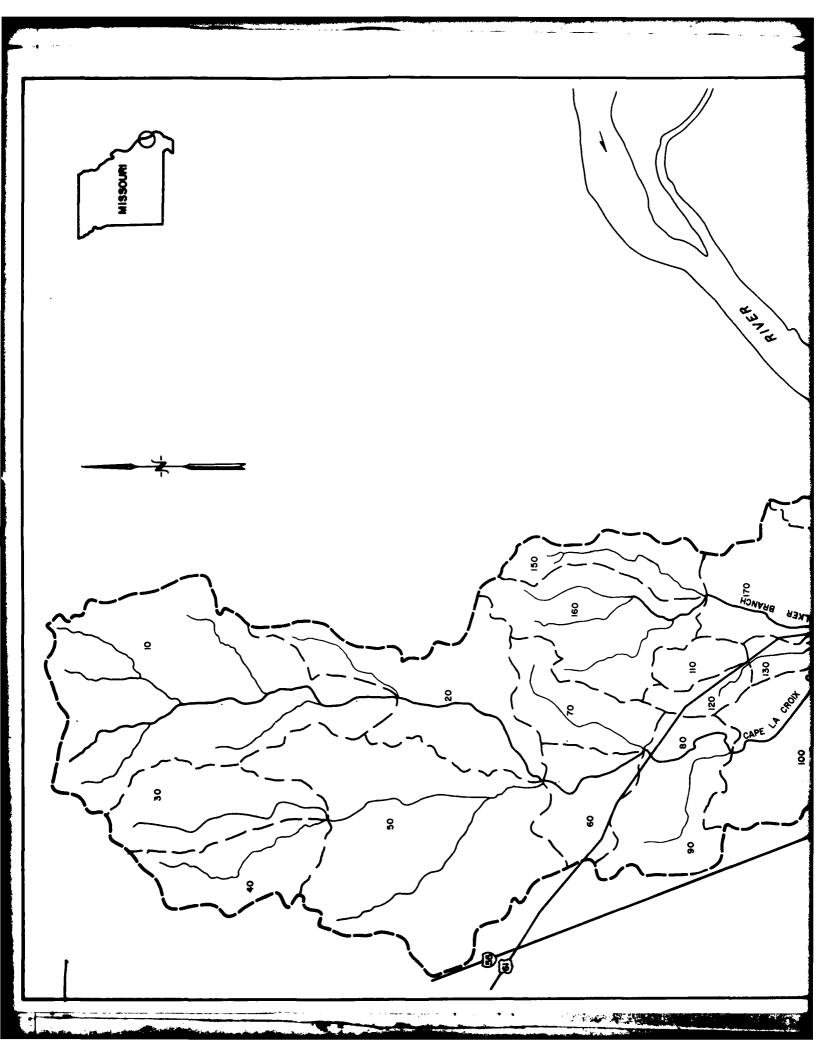
NO.	TITLE
D-40 thru	
D-45	Discharge Hydrographs, SPF Plan
D-46 thru	
D-51	Discharge Frequency Curves, SPF Plan
D-52, D-53	Water Surface Profiles, SPF Plan, Cape La Croix Creek
D-54	Water Surface Profiles, SPF Plan Walker Branch
D-55	Storage Elevation Curve, Dry Detention Reservoir No. 1
D-56 thru	
D-61	Discharge Hydrographs, Recommended Plan
D-62 thru	
D-67	Discharge Frequency Curves, Recommended Plan
D-68, D-69	Water Surface Profiles, Recommended Plan, Cape La Croix Creek
D-70	Water Surface Profiles, Recommended Plan, Walker Branch
D-71 thru	
D-76	Stage Frequency Curves, Recommended Plan
D-77 thru	
D-87	Flooded Area Maps, Recommended Plan
D-88, D-89	Water Surface Profiles, Cape La Croix Creek, PLAN A or EQ PLAN
D-90	Water Surface Profiles, Walker Branch, PLAN A or EQ PLAN

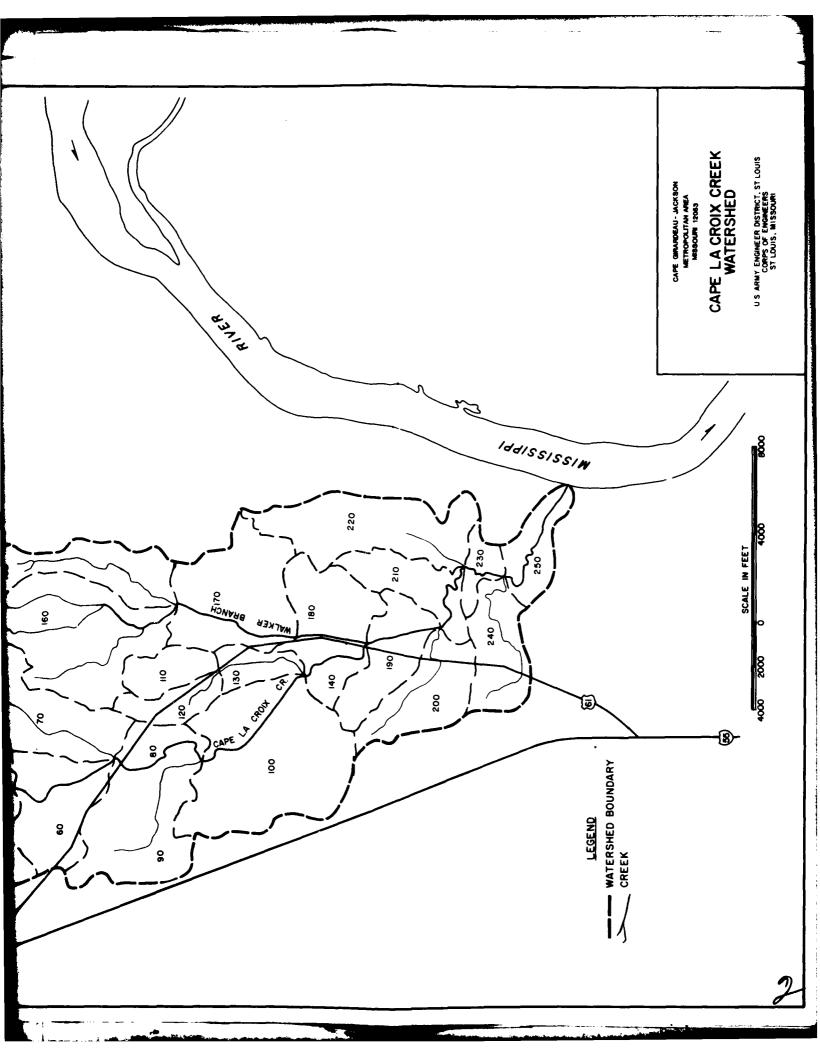
LIST OF PLATES (continued)

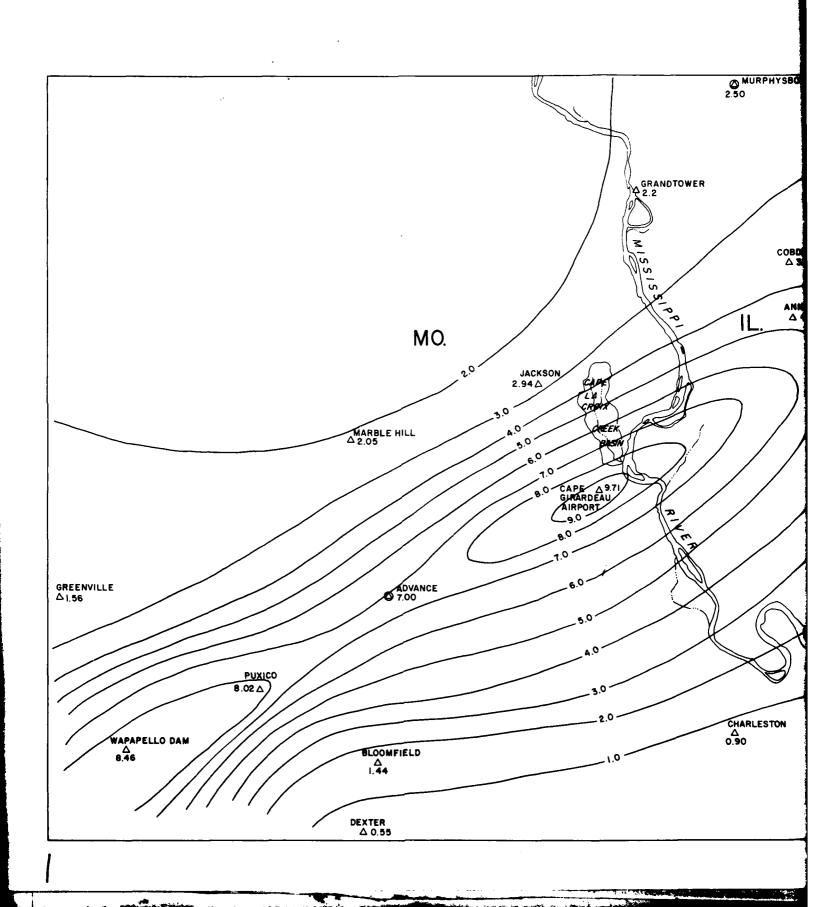
<u>NO.</u>	TITLE
E-1	Layout of Plates
E-2 thru	
E-5	Cape La Croix Creek Plan and Profile
E-6 thru	
E-7	Walker Branch Plan and Profile
E-8	Cape La Croix Creek Channel Transitions
E-9	Walker Branch Channel Transitions
E-10	Typical Channel Sections
E-11	Detention Reservoir Plan
E-12	Detention Dam Profile and Section
E-13	Flood Control Components of the Recommended Plan
F-1	Location of Biological Sampling Sites
F-2	Existing Habitat - Cape La Croix Creek Watershed
F-3	Existing Habitat - Hopper Road Site
F-4	Existing Habitat - Detention Site
F-5	National Economic Development Plan
F-6	Enviornmental Quality Plan
F-7	PLAN "A"
F-8	Recommended Plan
F-9	Recommended Plan, Detention Site 1, Land Acquisition
F-10	Recommended Plan, Detention Site 1, Recreation Plan
I-1	404 Jurisdictional Area For Cape La Croix Creek Watershed - Entire Basin
I-2	404 Jurisdictional Area For Cape La Croix Creek Watershed - Sub Basin











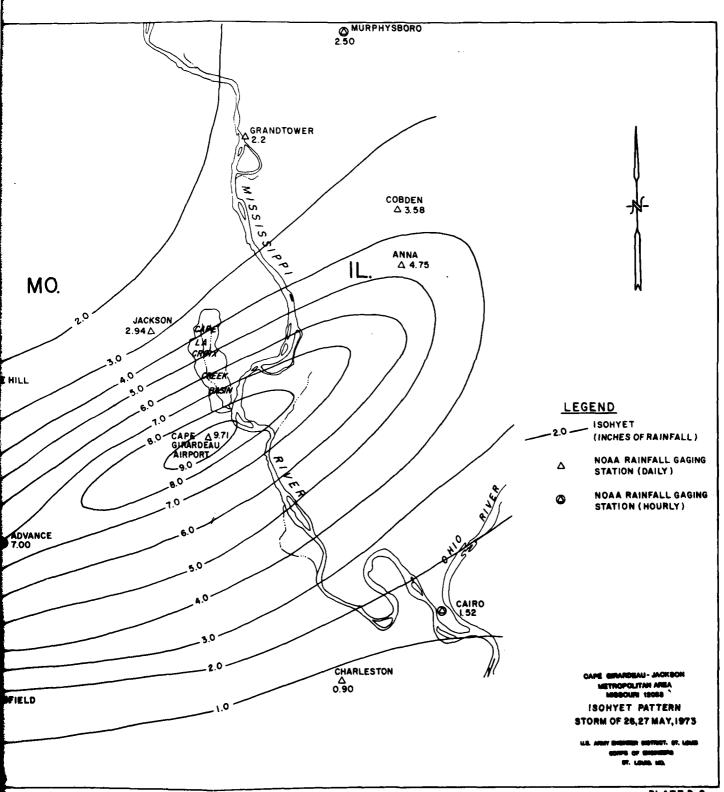
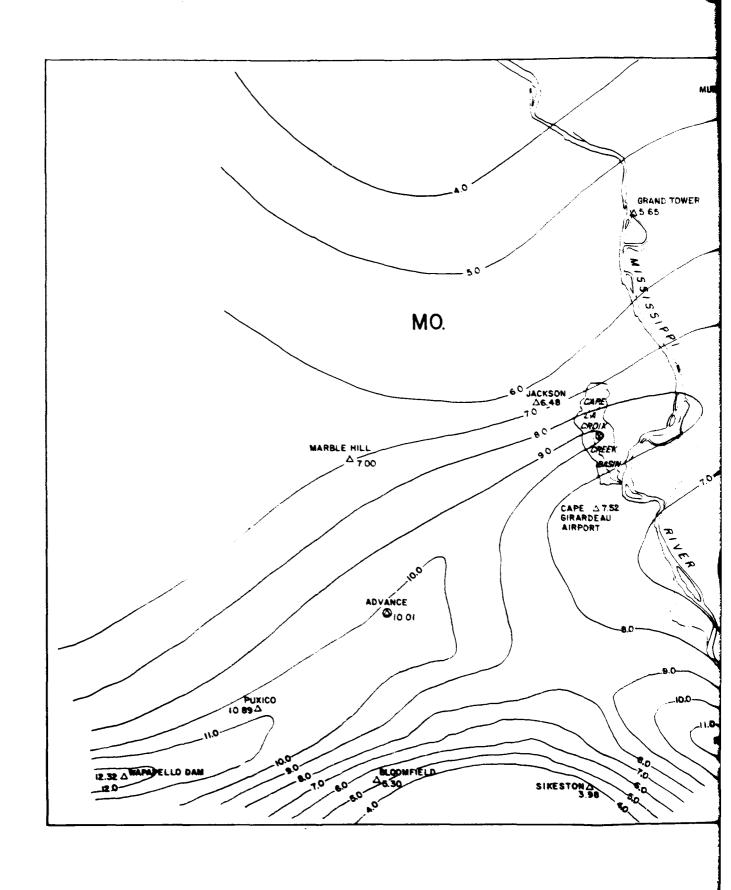
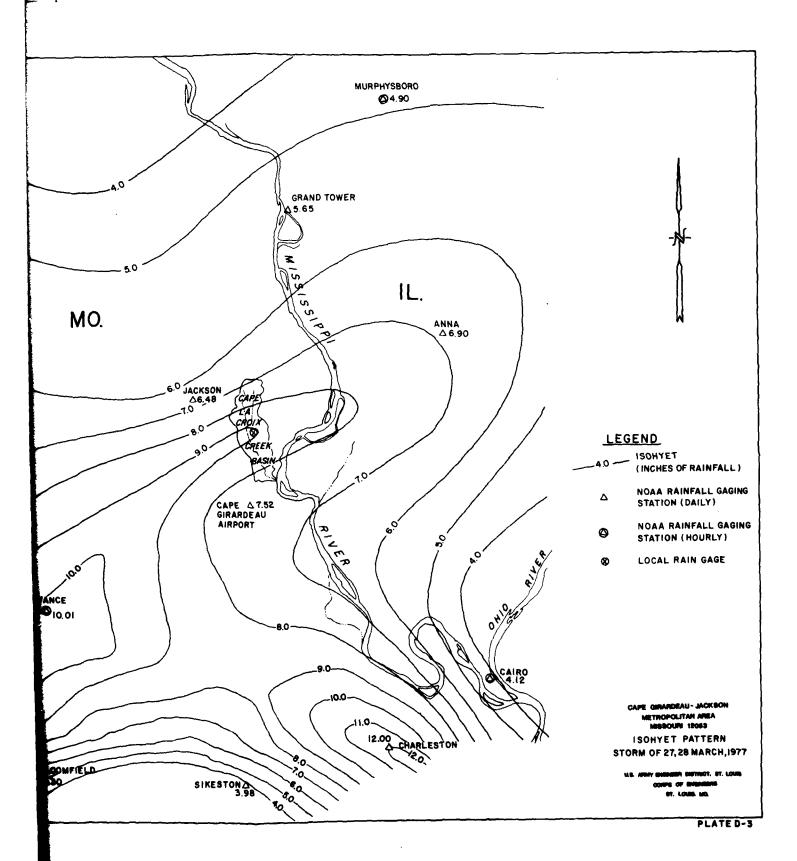
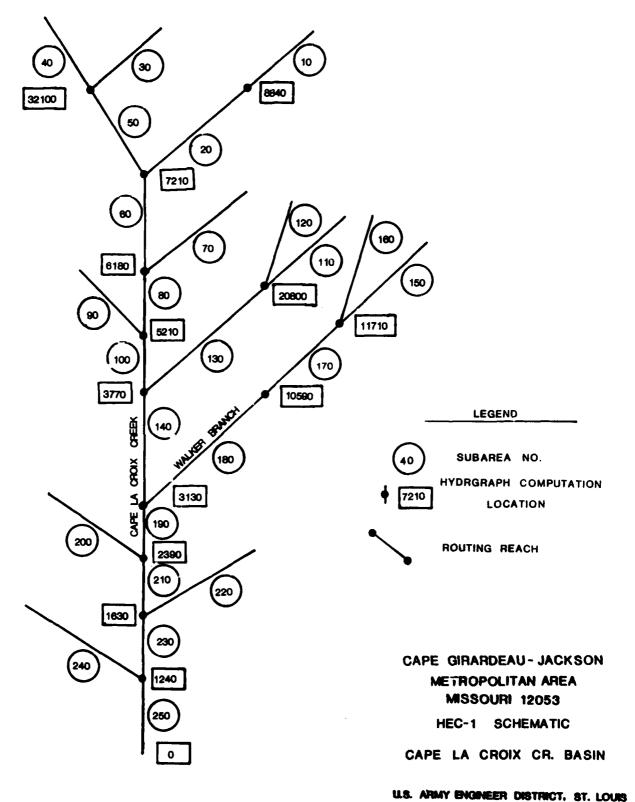


PLATE D-2







CORPS OF ENGINEERS ST. LOUIS, MQ.

The Aller of the Control of the Cont

PLATE D-4

The state of the s

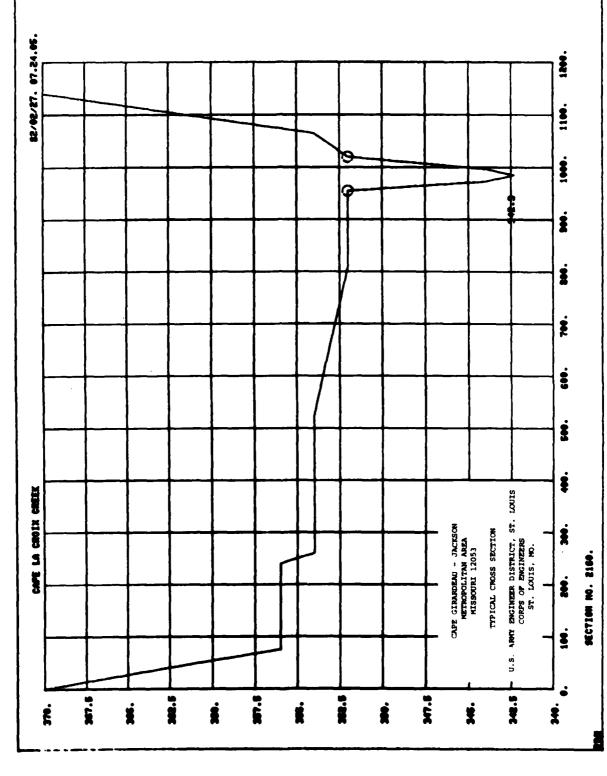
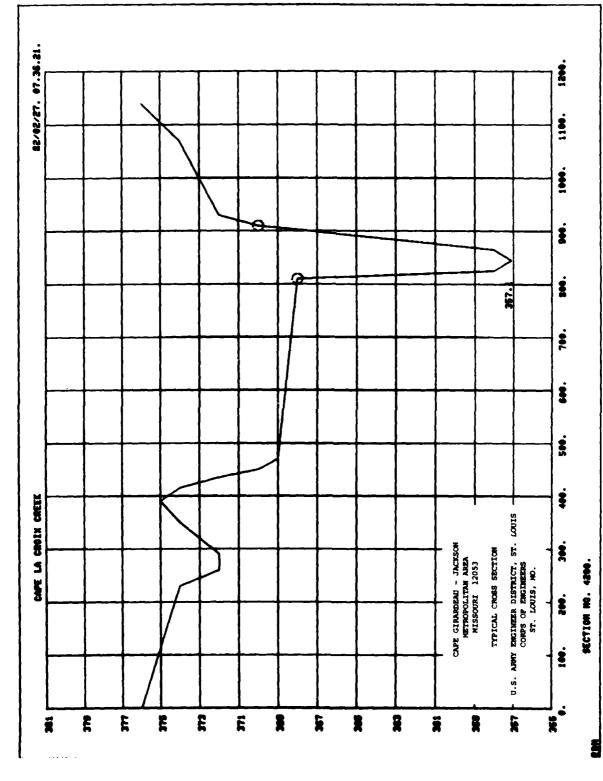


PLATE D-6



. . :

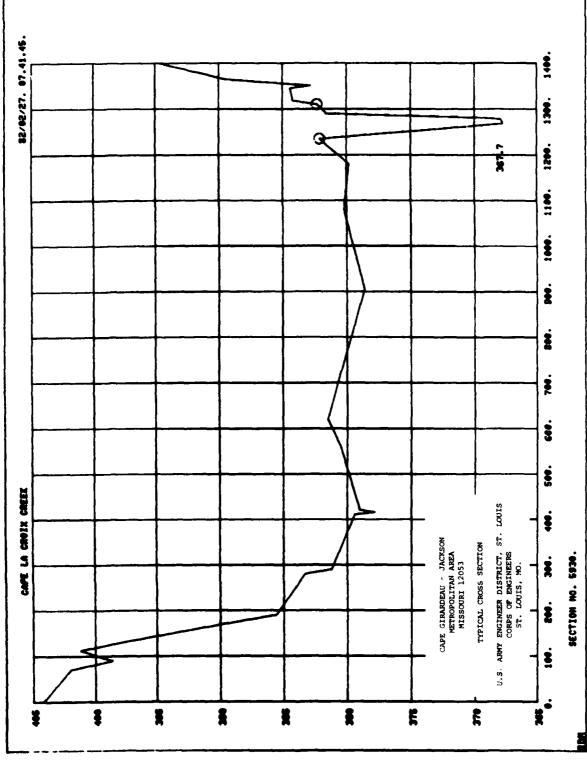


PLATE D-9

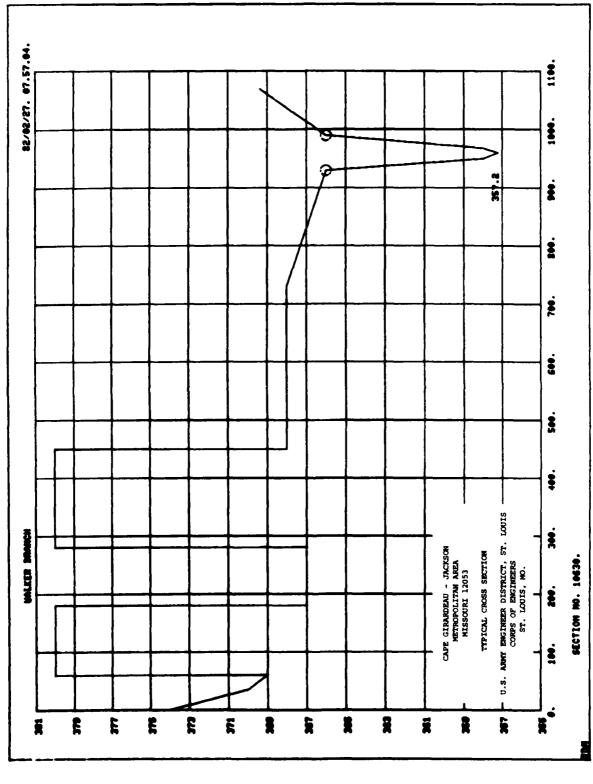
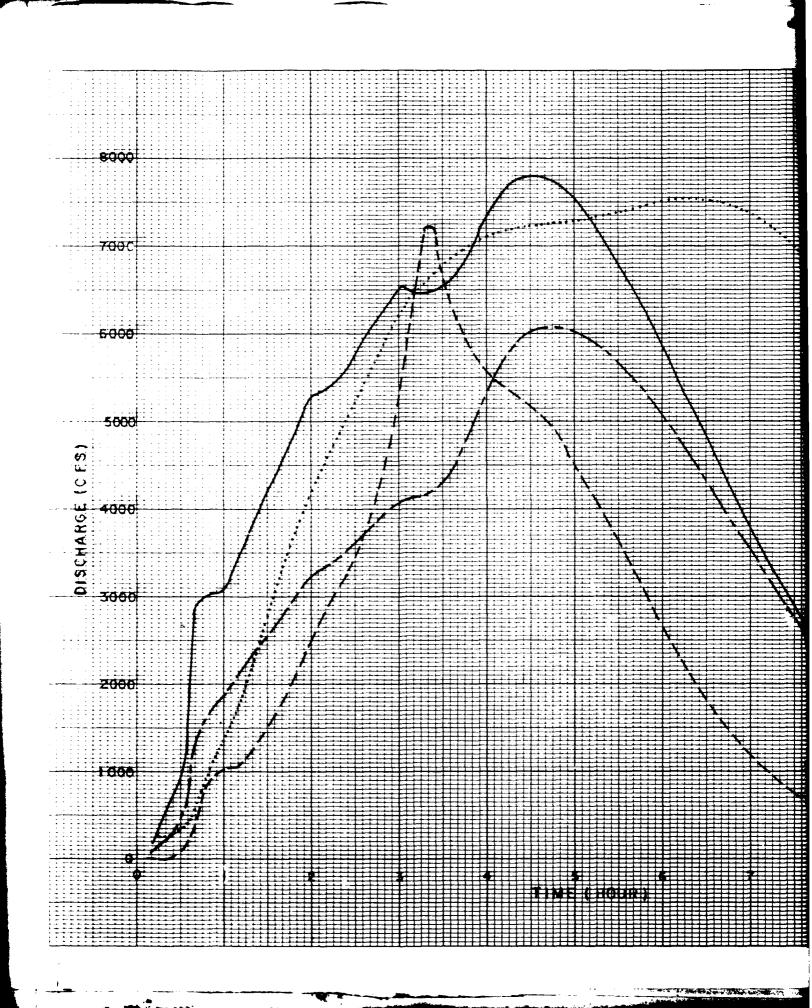
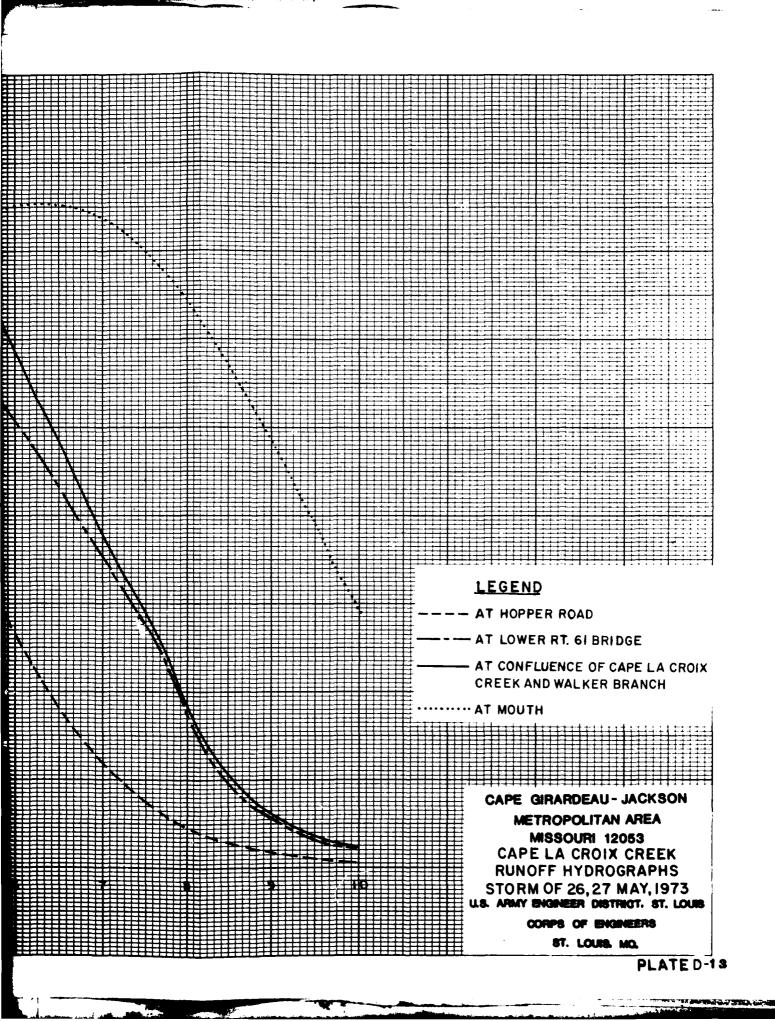
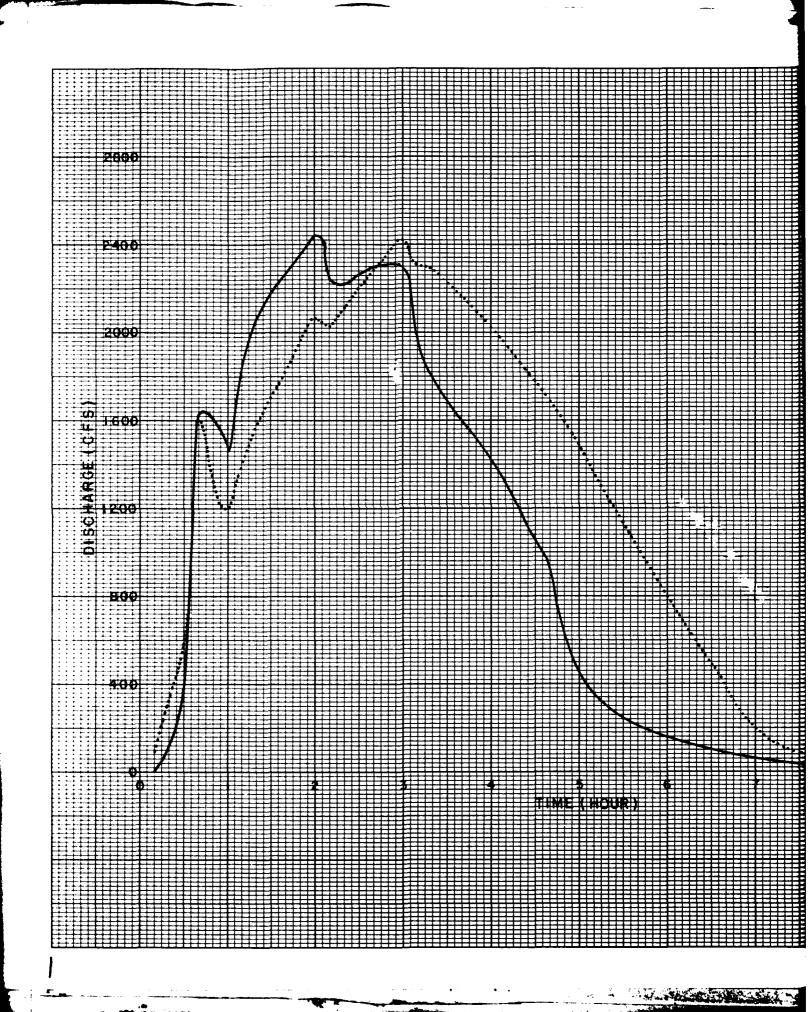


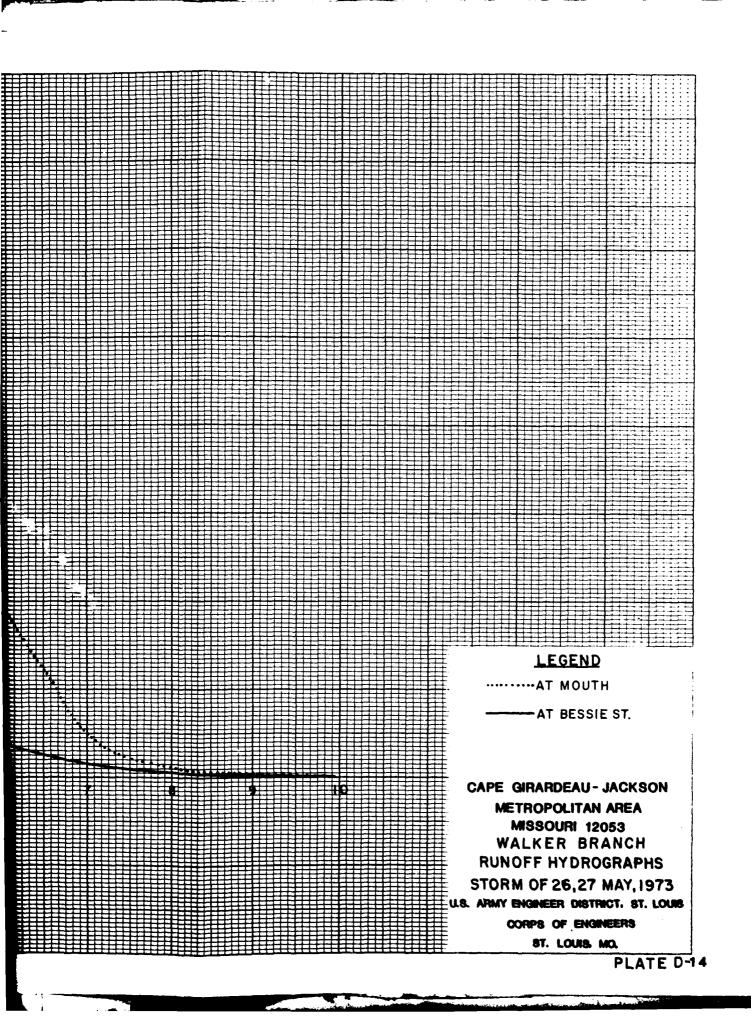
PLATE D-11

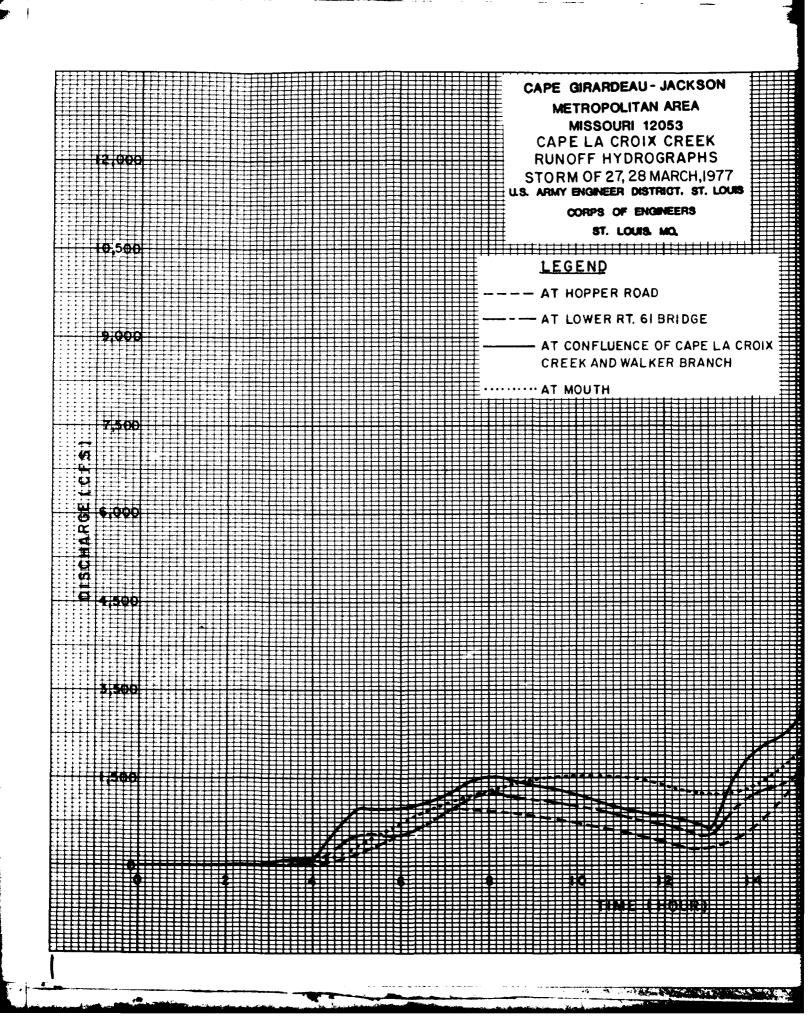
PLATE D-12

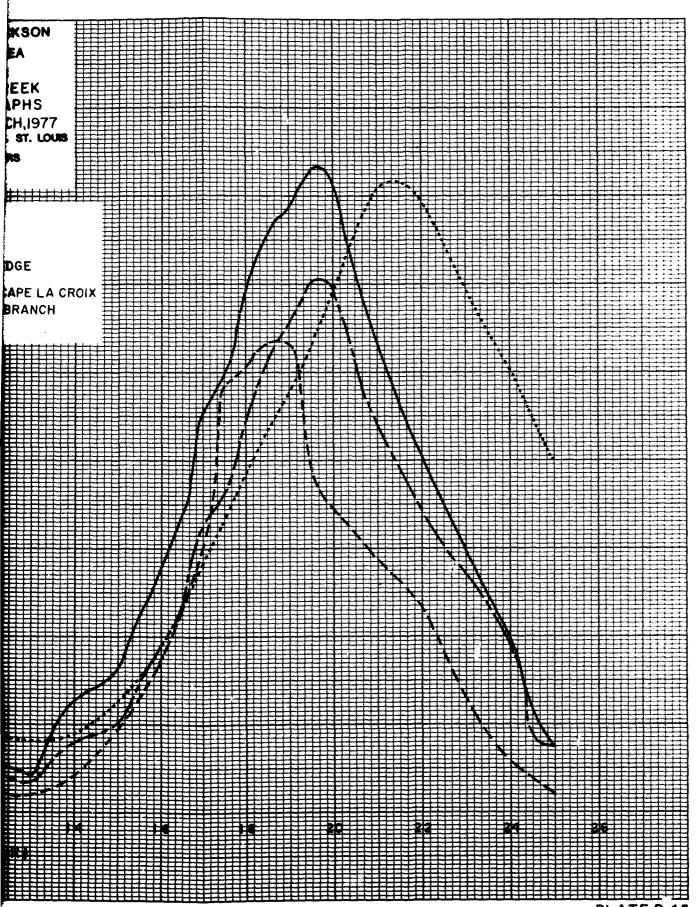


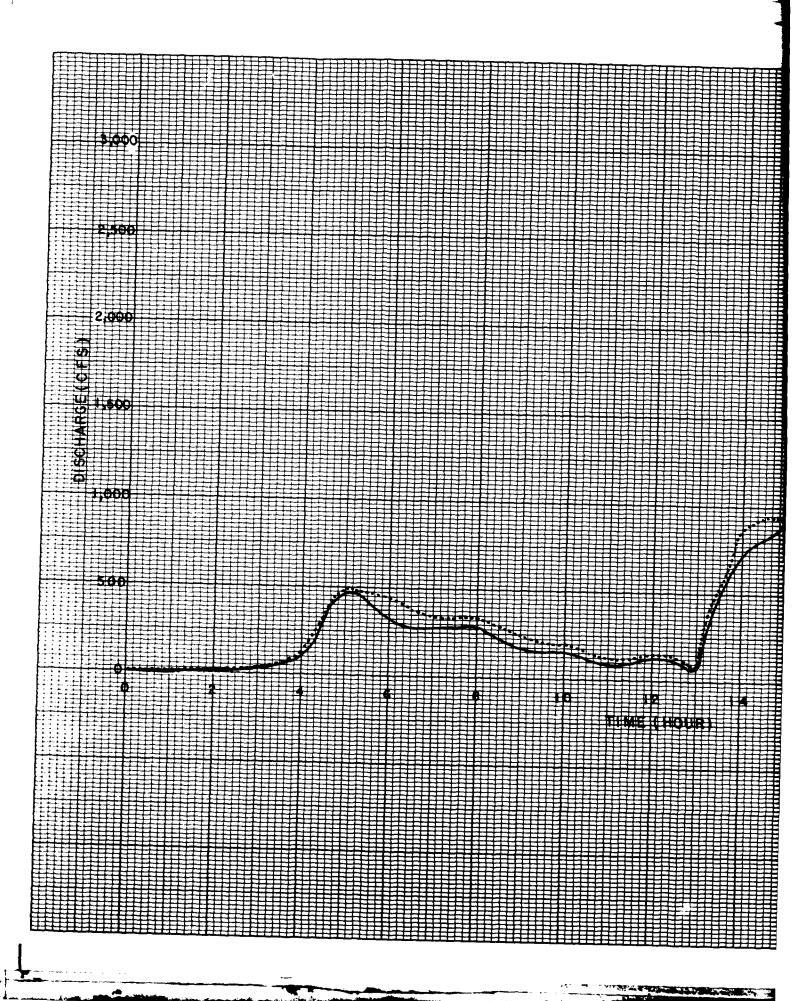


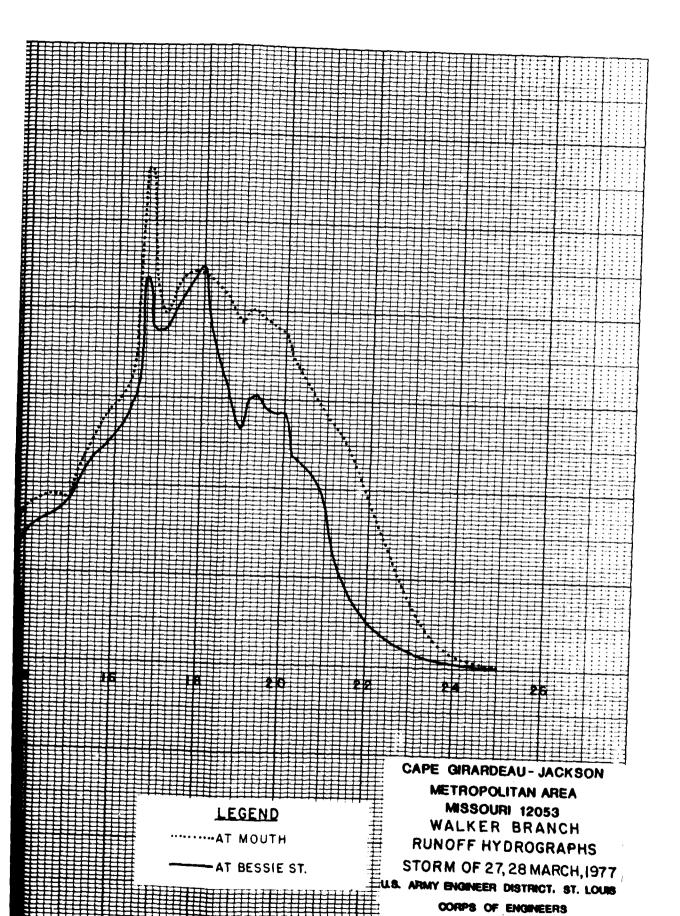






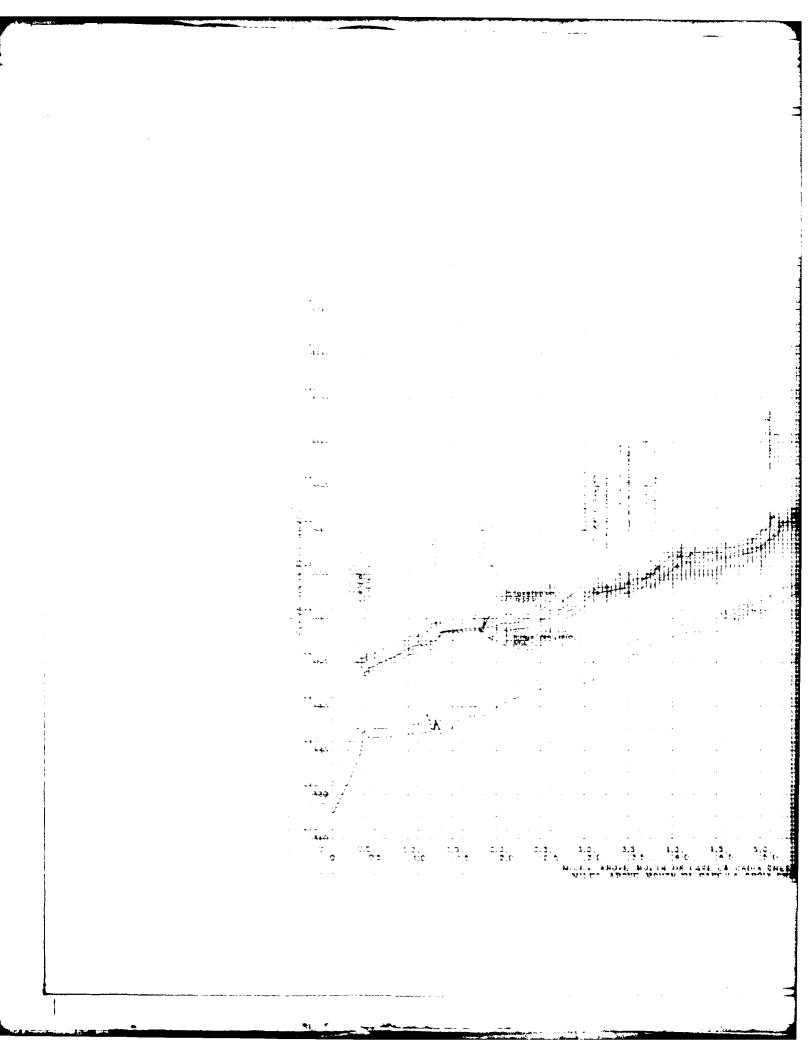


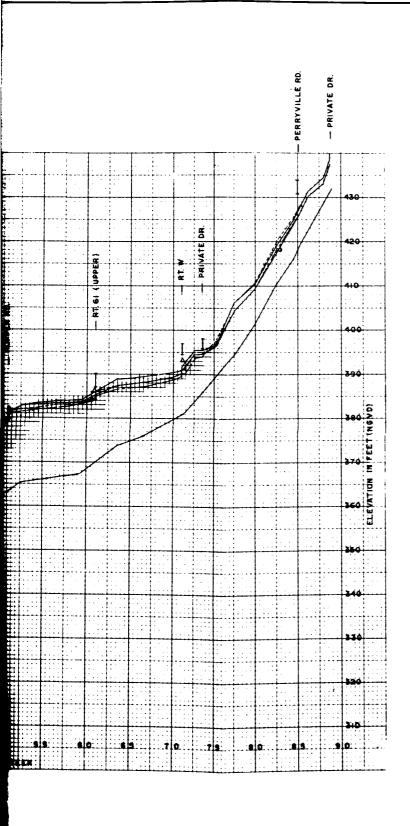




ST. LOUIS MO.

PLATED-16





LEGEND

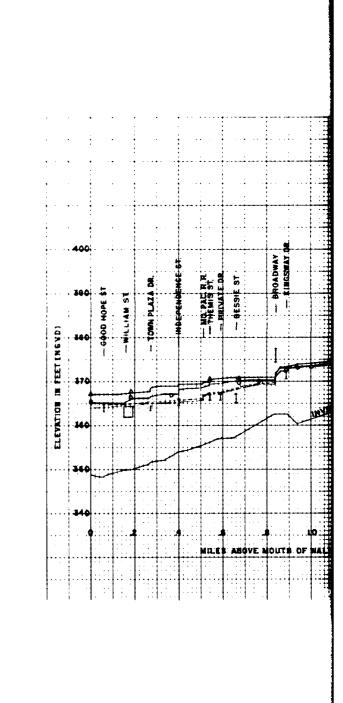
- ACTUAL HIGH WATER MARKS FOR 27, 28 MARCH, 1977
- ACTUAL HIGH WATER MARKS FOR 26,27 MAY, 1973
- COMPUTED PROFILE FOR 27,28 MARCH, 1977 FLOOD FLOOD W/REVISED NED PLAN
 - COMPUTED PROFILE FOR 26,27 MAY, 1973 FLOOD FLOOD W/REVISED NED PLAN

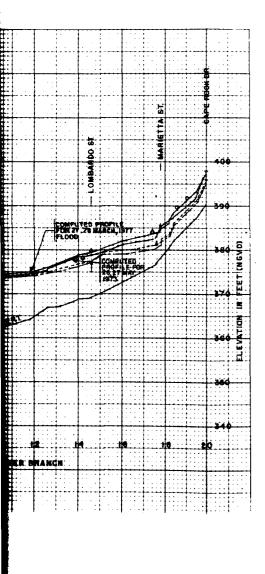
CAPE GMANDEAU-JACKSON METROPOLITAN AREA MISSOURI 19883

WATER SURFACE PROFILES
CAPE LA CROIX CREEK

U.S. Affect describe appropriate or, Lauri delific of describes 17. Librit. Mg.

4 7 4



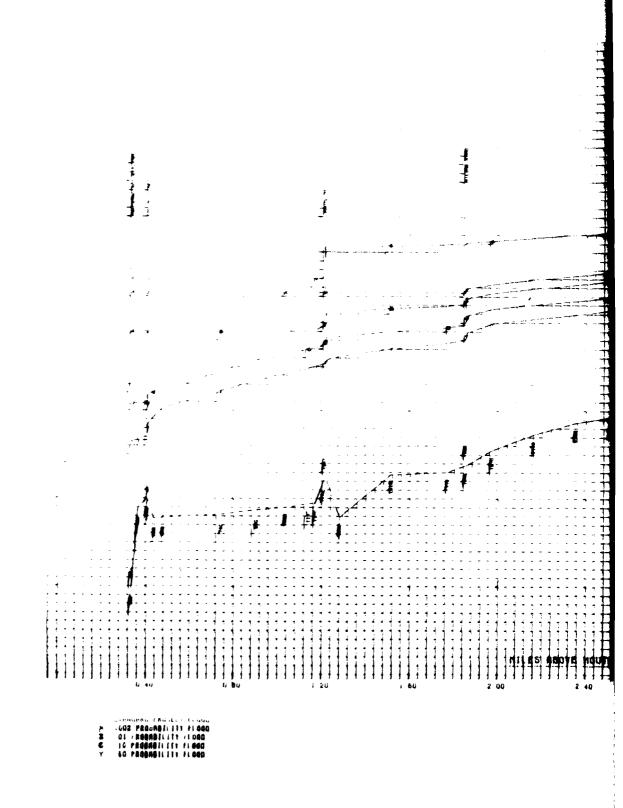


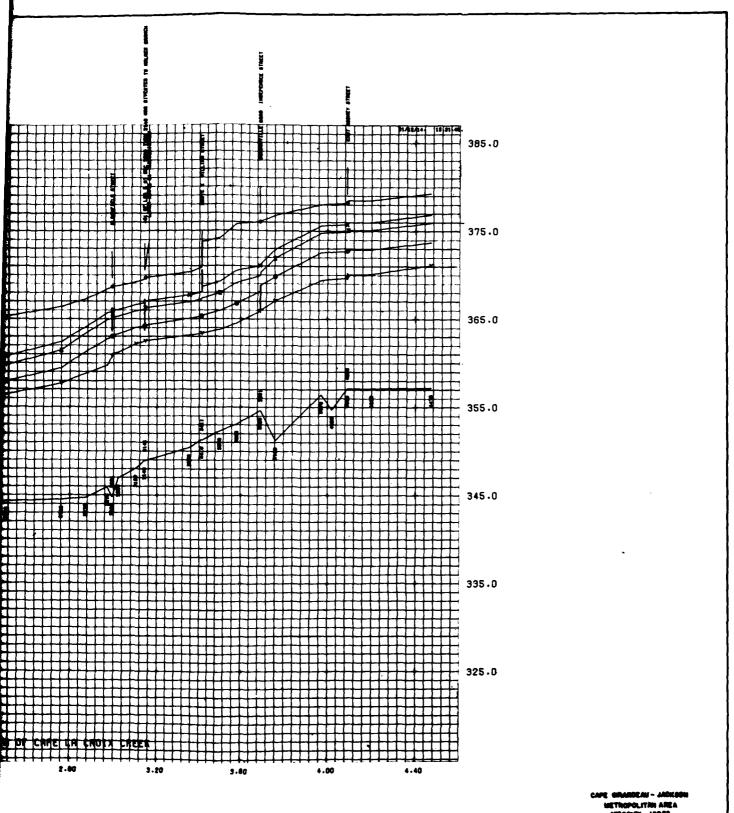
- ACTUAL HIGH WATER MARKS FOR 27, 28 MARCH, 1977
- O ACTUAL HIGH WATER MARKS FOR 26,27 MAY, 1973
- COMPUTED PROFILE FOR 27,28 MARCH, 1977 FLOOD FLOOD W/RECOMMENDED PLAN
 - COMPUTED PROFILE FOR 26,27 MAY, 1973 FLOOD FLOOD W/RECOMMENDED PLAN

CAPE GIRARDEAU-JACKSON METROPOLITAN AREA MESCURI 12083

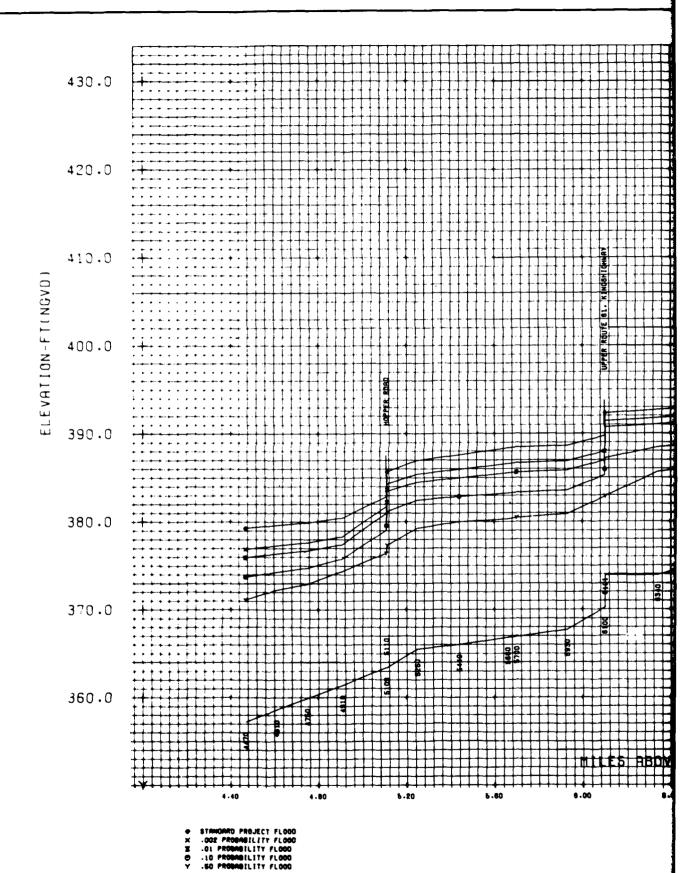
WATER SURFACE PROFILES
WALKER BRANCH

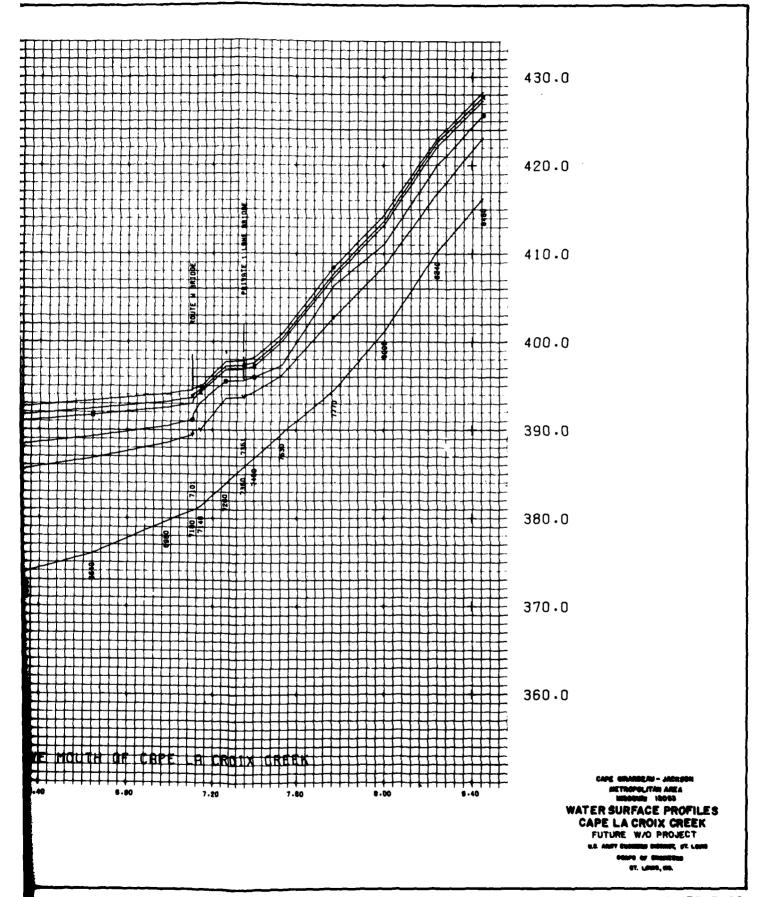
U.S. AFRIT ENGINEERS SIGNIFIED, UT, LOUIS COPPE OF ENGINEERS 67. LOUIS, MS.

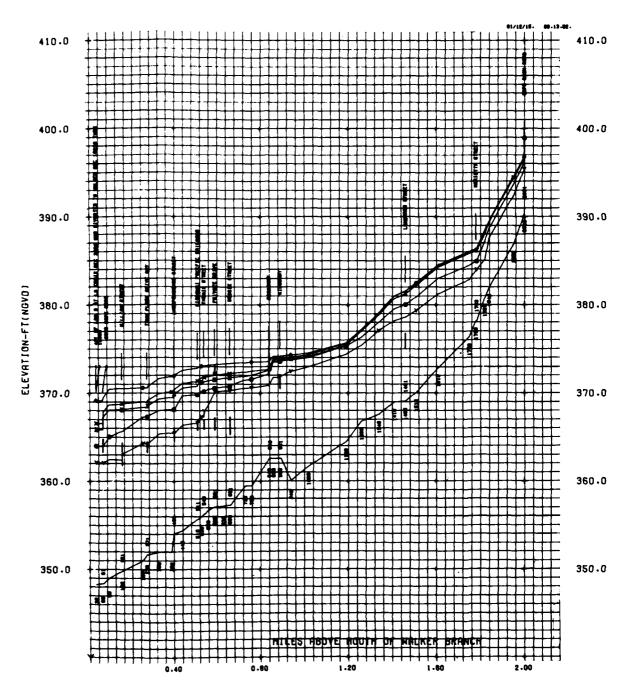




WATER SURFACE PROFILES
CAPE LA CROIX CREEK
FUTURE W/O PROJECT
UL ANIV EVINEEN BUSINES, OT LONG
OCCUPANT AND LANGE OF LAN







- STMIOARD PROJECT FLOOD
 X .002 PROSABILITY FLOOD
 X .01 PROSABILITY FLOOD
 O .10 PROSABILITY FLOOD
 Y .50 PROSABILITY FLOOD

18081 MUQ WATER SURFACE PROFILES WALKER BRANCH FUTURE W/O PROJECT ---

92 L000, 80

ST. LOUIS. MO. PLATE D-14

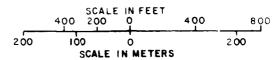


10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

IOM MILE



CAPE GIRARDEAU - IACKSON METROPOLITAN AREA MISSOURI 12053

CAPE LA CROIX CREEK FLOODED AREAS

U.S. ARMY ENGINEER DISTRICT. ST. LOUIS

CORPS OF ENGINEERS

ST. LOUIS. MO.







10% FROBABILITY



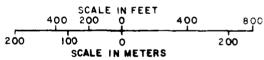
1% PROBABIL!TY



STANDARD PROJECT FLOOD

10 M

MILE

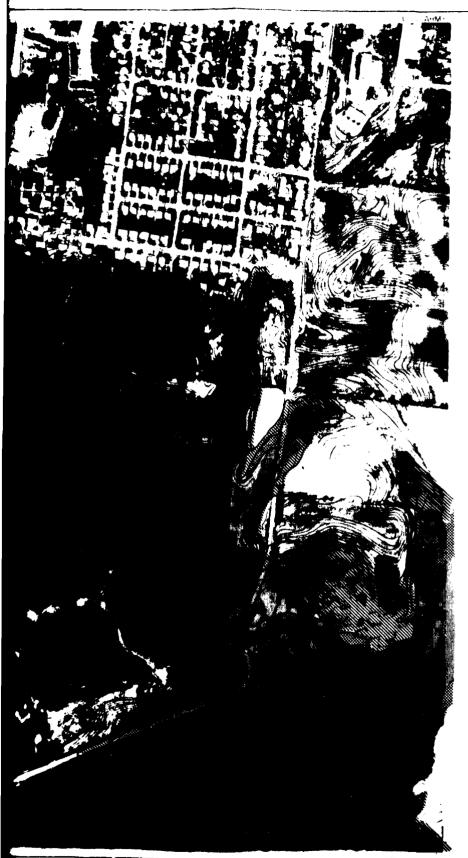


CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

CAPE LA CROIX GREEK FLGODED AREAS

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS, MQ.







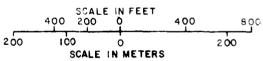
10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

IO M

MILE



CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

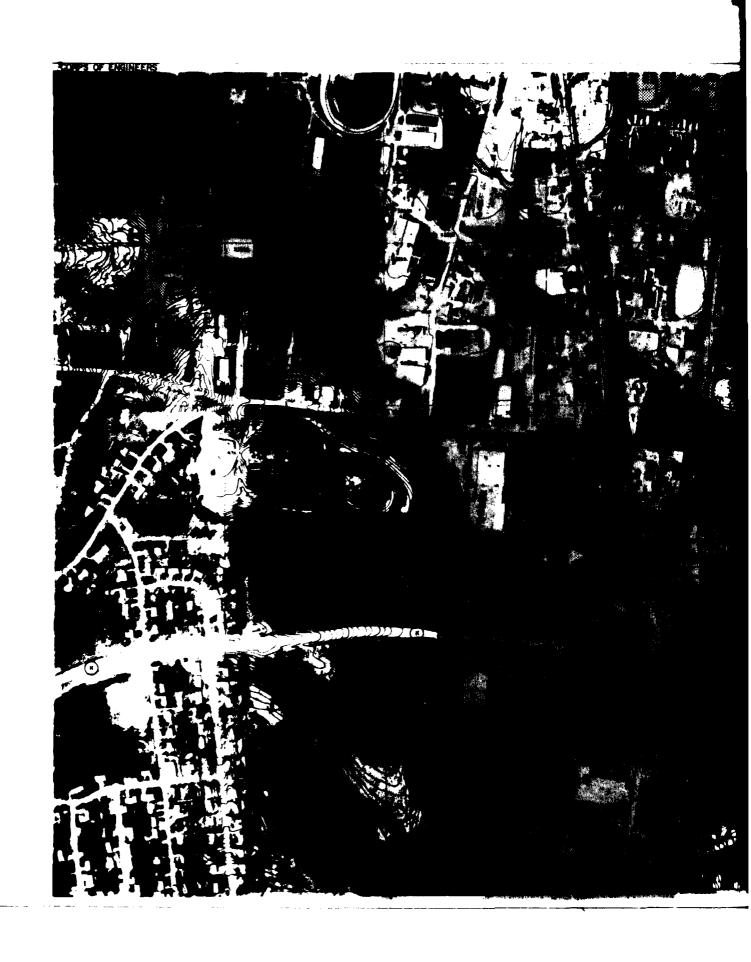
CAPE LA CROIX CREEK FLOODED AREAS

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS. MO.

PLATE D-24

THE RESERVE OF THE PERSON OF T







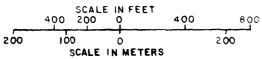


10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

IOM MILE

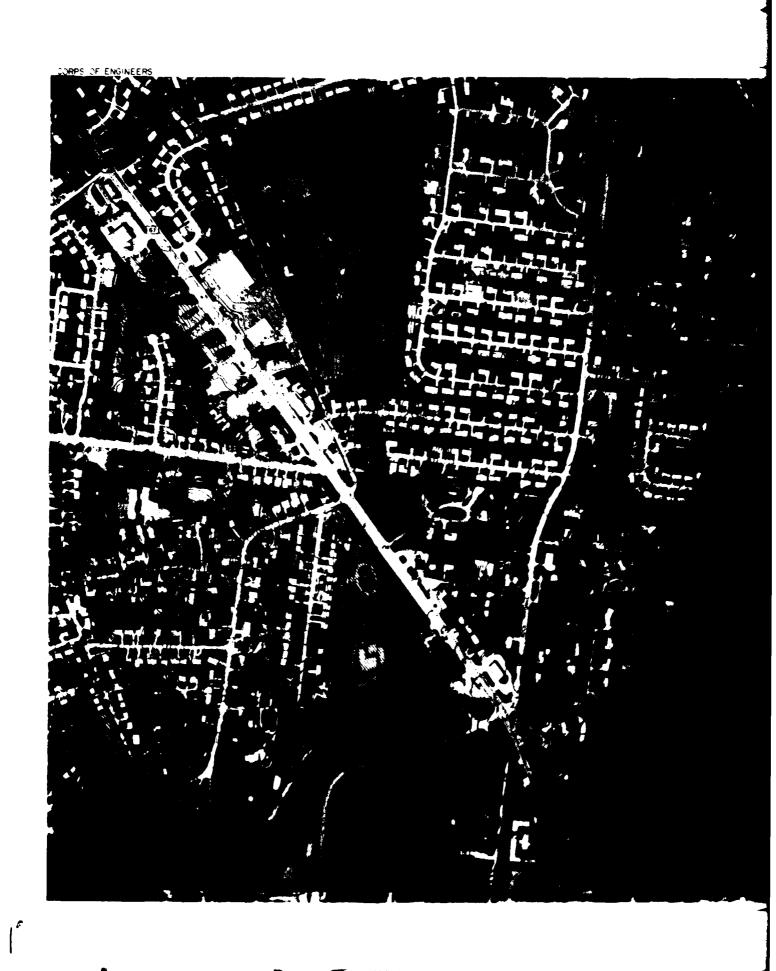


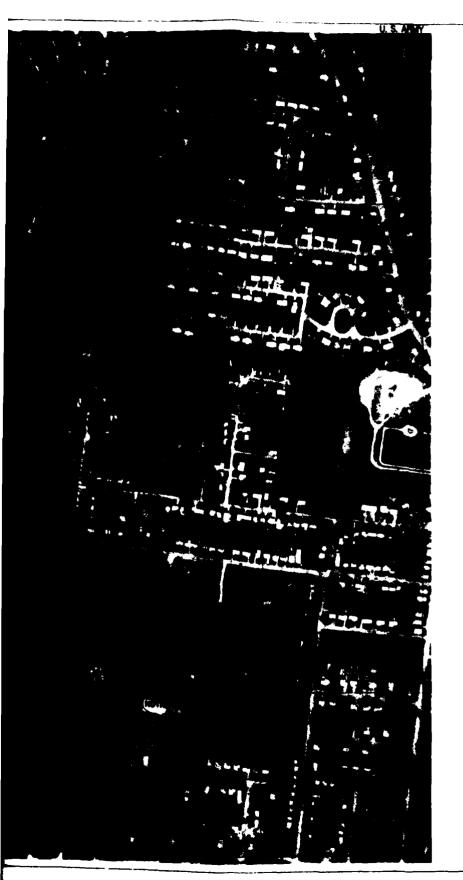
CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

> CAPE LA CROIX CREEK WALKER BRANCH FLOODED AREAS

US ARMY ENGINEER DISTRICT, ST. LOUIS
COMPS OF ENGINEERS
ST. LOUIS, MD.







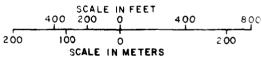


10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

IOM MILE

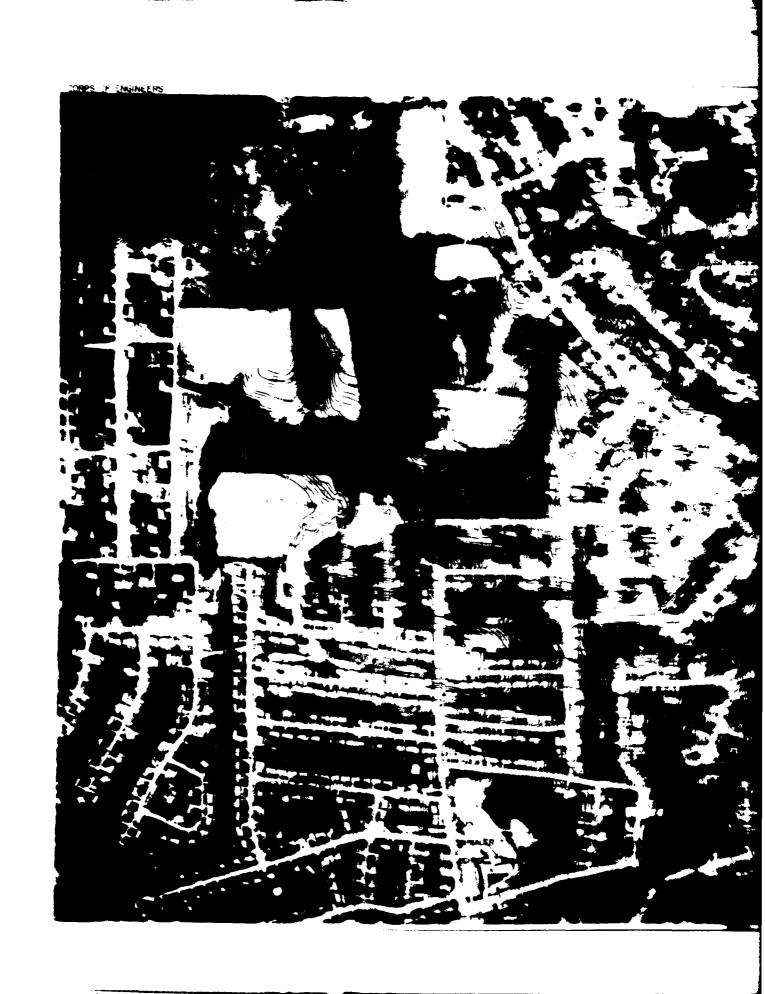


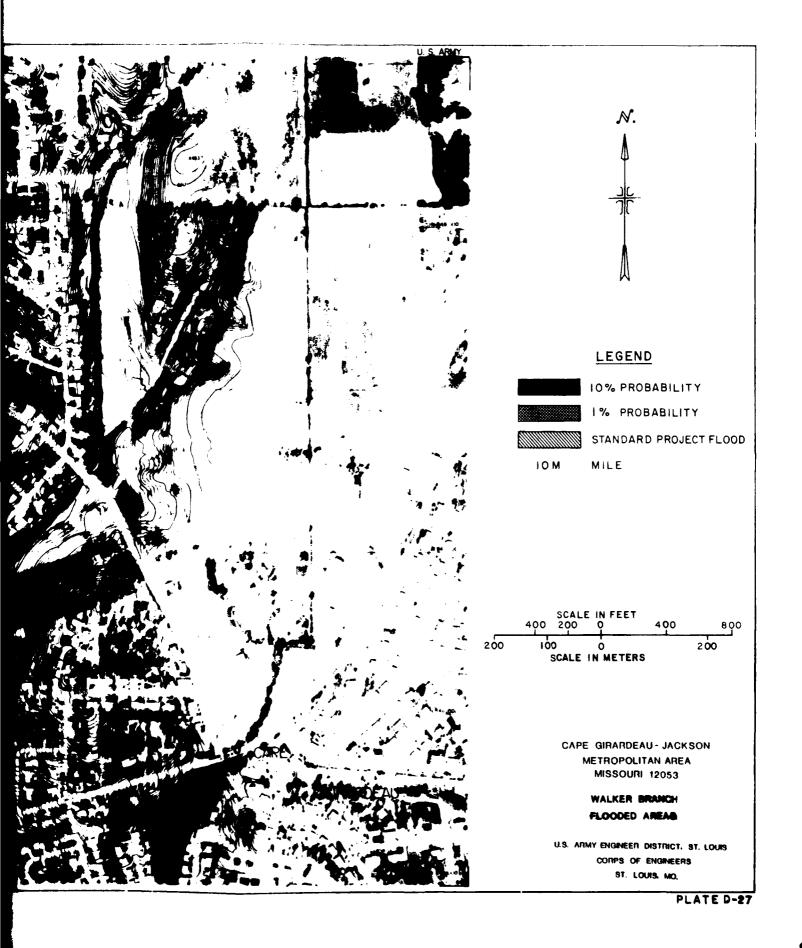
CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS

CORPS OF ENGINEERS

ST. LOUIS, MO.







THE PROPERTY OF THE PARTY OF TH



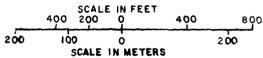


10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

10M MILE



CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

CAPE LA CROIX CREEK FLOODED AREAS

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS, MO.







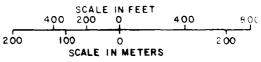
IO% PROBABILITY

I% PROBABILITY

STANDARD PROJECT FLOOD

MILE

10 M



CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

> CAPE LA CROIX CREEK FLOODED AREAS

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS, MO,







10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

IOM MILE

SCALE IN FEET 400 200 0 400 800 200 100 0 200 SCALE IN METERS

> CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

CAPE LA CROIX CREEK FLOODED AREAS

U.S. ARMY ENGINEER DISTRICT. ST. LOUIS

CORPS OF ENGINEERS

ST. LOUIS, MO.





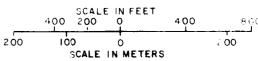


IO% PROBABILITY

I% PROBABILITY

STANDARD PROJECT FLOOD

IOM MILE



CAPE GIRARDEAU JACKSON METROPOLITAN AREA MISSOURI 12053

CAPE LA CROIX CREEK FLOODED AREAS

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MO.







10% PR

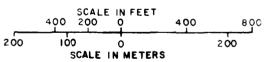
10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

10 M

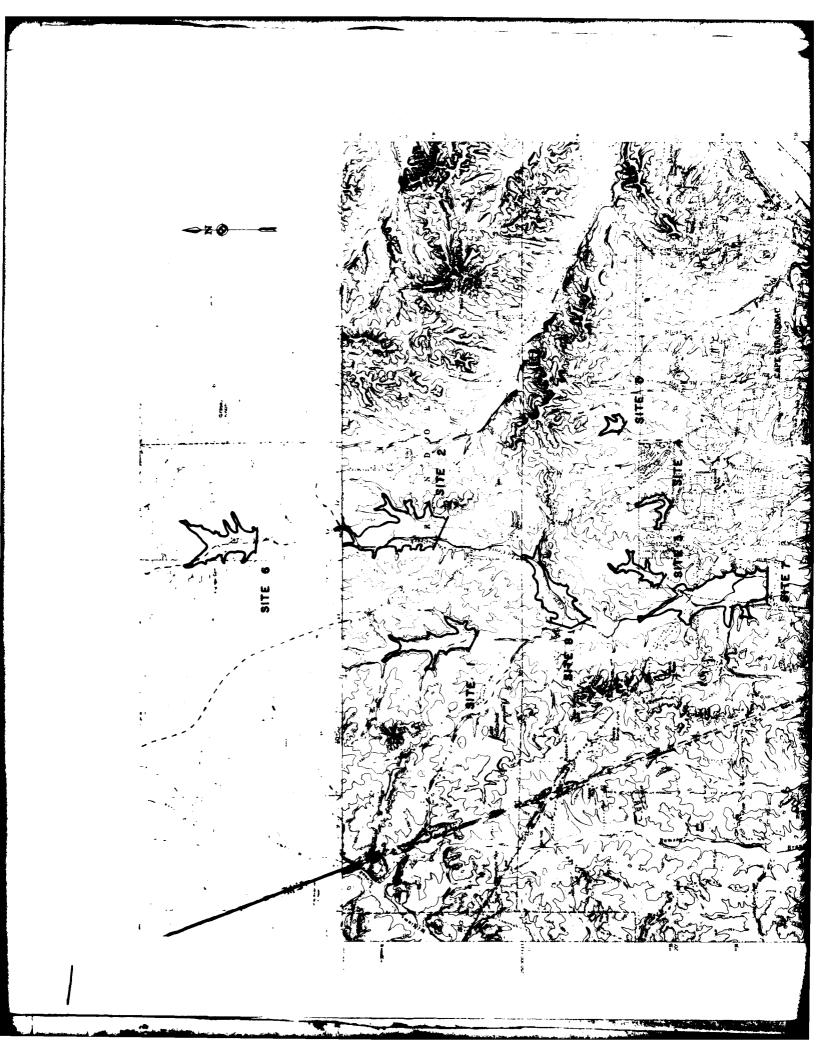
MILE

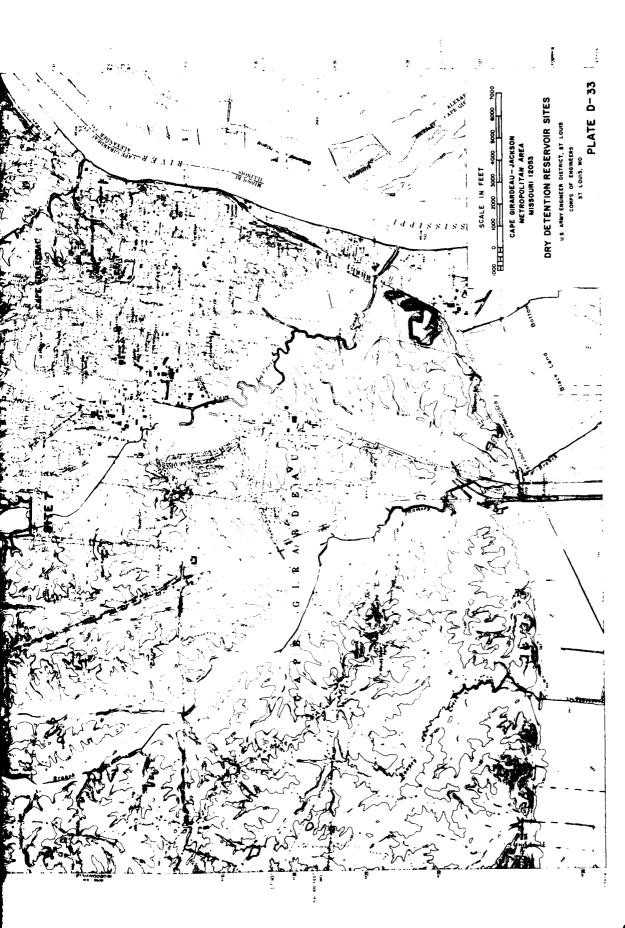


CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

CAPE LA CROIX CREEK
FLOODED AREAS

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS, MO.





25 TIME IN HOURS 2 17 15 12 į Î

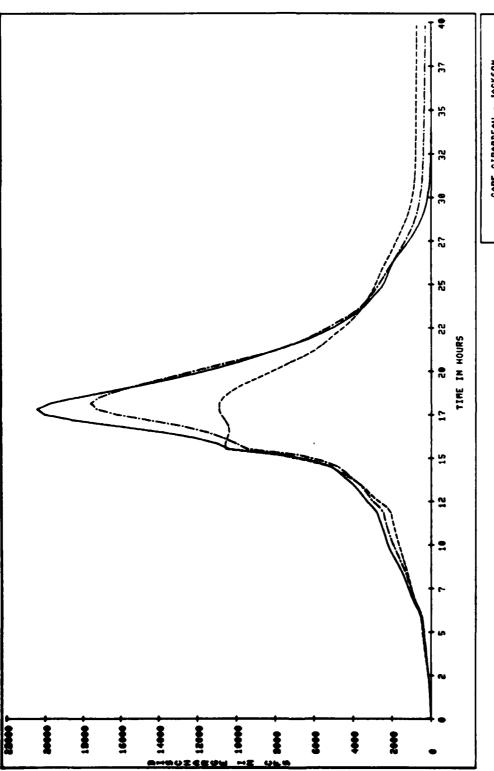
CAPE GIRARDEAU - JACKSON NETROPOLITAN AREA RISSOURI 12053

SHYDROGRAPHS AT HOPPER ROADS U.S. ARRY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, NO.

.. SPF STORM FUTURE WITH RECORNENDED PLAN

SPF STORM FUTURE WITHOUT

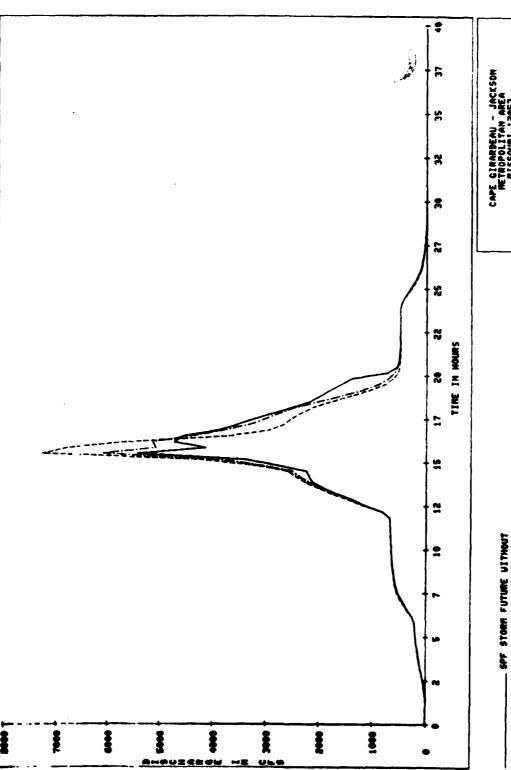
-. SPF STORM FUTURE WITH SPF PLAN



SPF STORM FUTURE WITHOUT

-----SPF STORM FUTURE UITH SPF PLAN

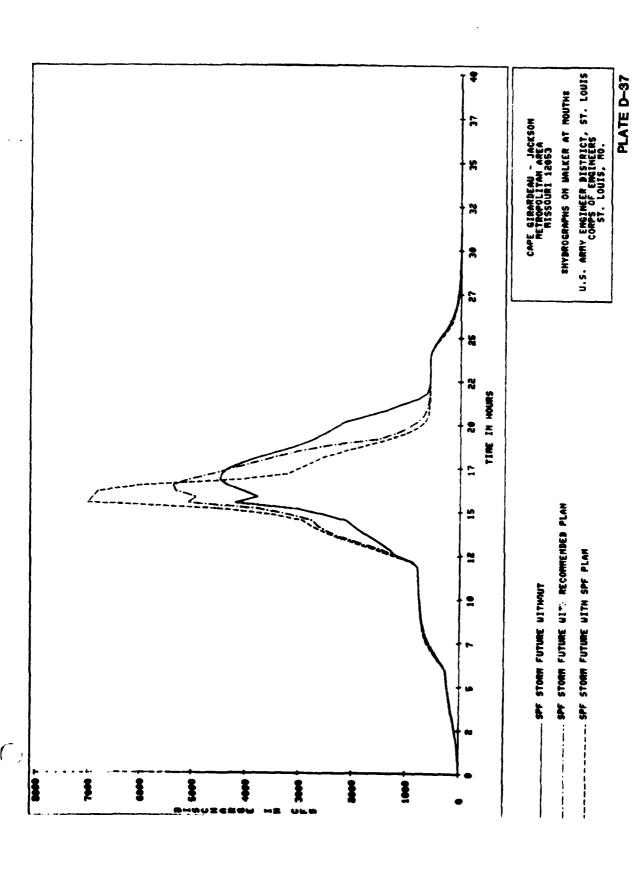
CAPE GIRARDEAU - JACKSON
NETROPOLITAN AREA
HISSOURI 12853
RHYBROGRAPHS AT LOWER RT 61 BRIDGER
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
CST. LOUIS, NO.

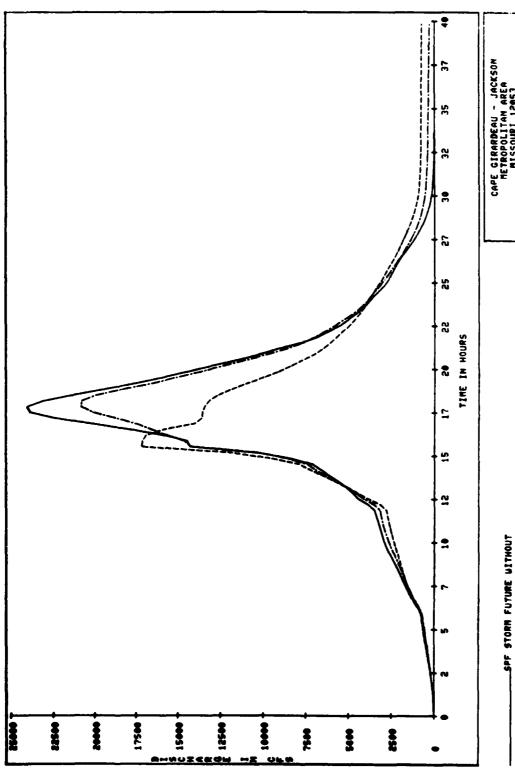


U.S. ARNY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, NO. SHYDROGRAPHS ON WALKER AT BESSIE ST.S CAPE GIRARBEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

.. SPF STORM FUTURE UITH SPF PLAN

. SPF STORM FUTURE UITH RECORDENDED PLAN

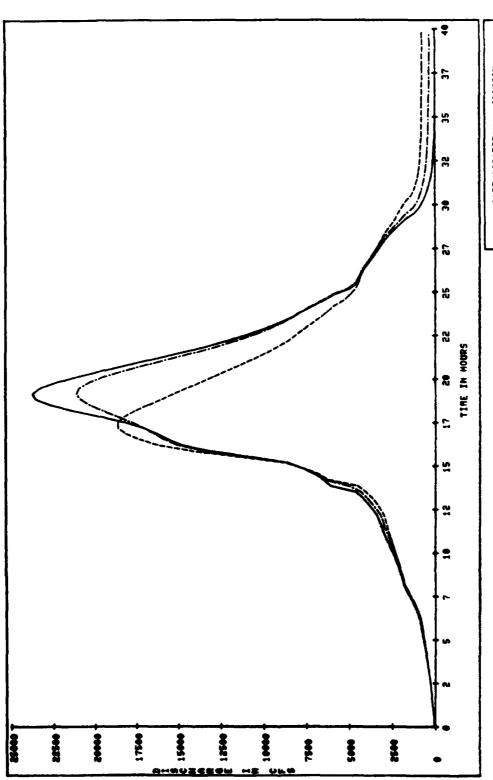




the second secon

5.4

CAPE GIRARDEAU - JACKSON
RETROPOLITAN AREA
RISSOURI 12053
EMYDROGRAPHS AT JCT. OF CAPE & UALKEPT
U.S. ARRY ENGINEER DISTRICT, ST. LOUIS
ST. LOUIS, MO.

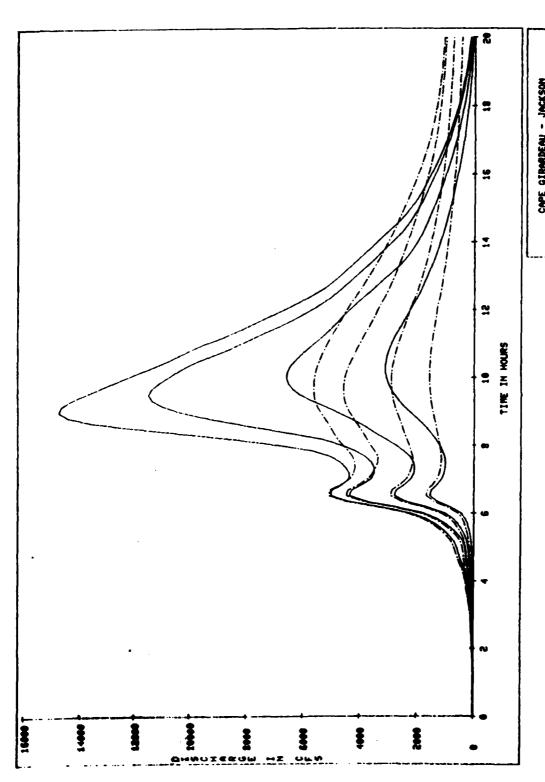


CAPE GIRODGITAN AREA
METROPOLITAN AREA
MISSOURI 18053
ENVDROGRAPHS AT MOUTH OF CAPE LA CROIX
U.S. ARNY ENGINEER DISTRICT, ST. LOUIS
ST. LOUIS, NO.

SPF STORM FUTURE UITHOUT

A STATE OF THE STA

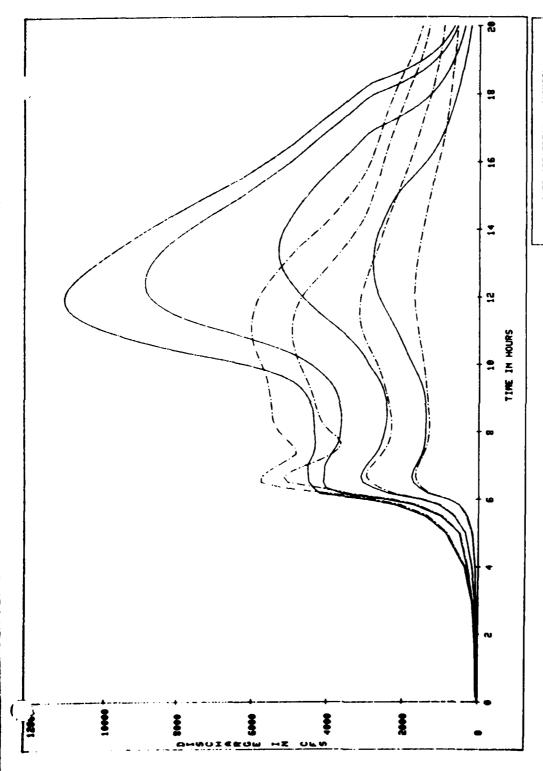
----- SPF STORM FUTURE UITH SPF PLAN



2, 10, 100, 500 YR. STORM - FUTURE WITHOUT

------ 2, 10, 100, 500 YR. STORM - FUTURE UITH SPF PLAN

CAPE GIRARDEAU - JACKSON
HETROPOLITAN AMEA
HISSOURI 12053
EHYDROGRAPHS AT HOPPER ROADE
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS, MO.



2, 10, 100, 500 VR. STORM - FUTURE UITWOUT

CAPE GIRARDEMI - JACKSON
FETROPOLITAN AREA
FISSOURI 12053
RHYDROGRAPHS AT LOUER RT 61 BRIDGER
U.S. ARRY ENGINEER DISTRICT, ST. LOUIS
COPPS OF ENGINEERS
ST. LOUIS, MO.

PLATE D-41

200

Ĭ

•

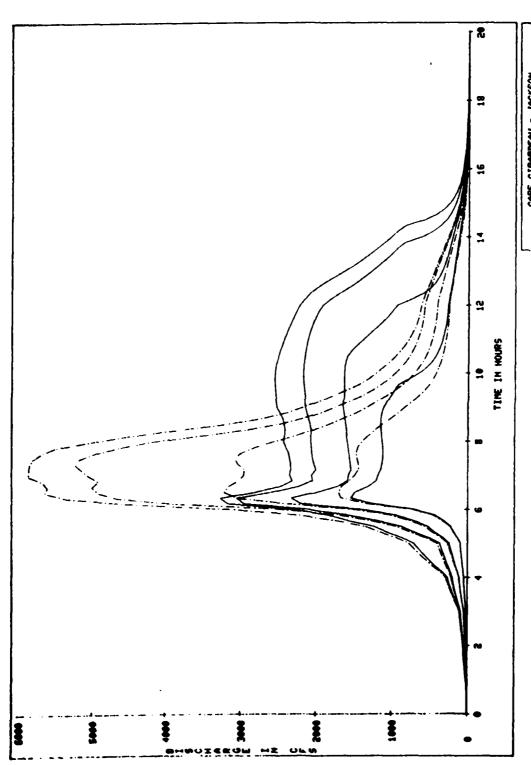
3

2005

2, 10, 100, 500 VR. STORM - FUTURE UITHOUT

The Aller of the Control of the Cont

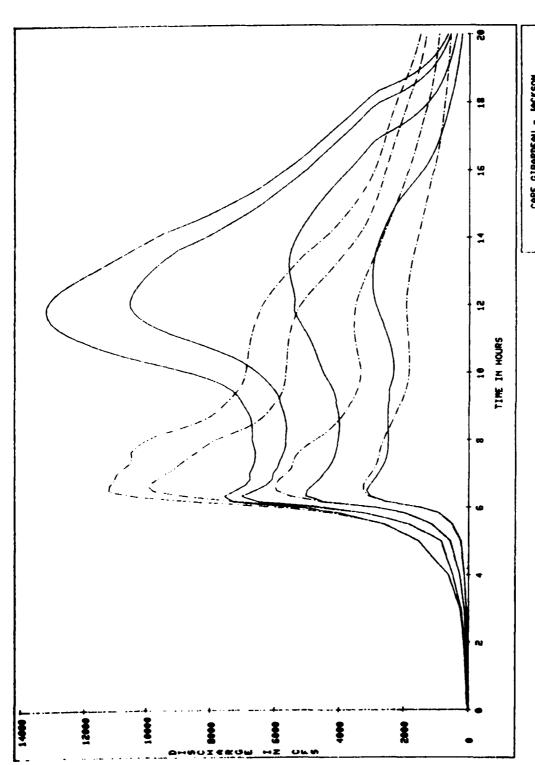
PLATE D-42



CAPE GIRARDEAU - JACKSON
NETROPOLITAN AREA
NISSOURI 12053
EHYDROGRAPHS ON UALKER AT MOUTHE
U.S. ARRY ENGINEER DISTRICT, ST. LOUIS
ST. LOUIS, NO.

2, 10, 100, 500 VR. STORM - FUTURE WITHOUT

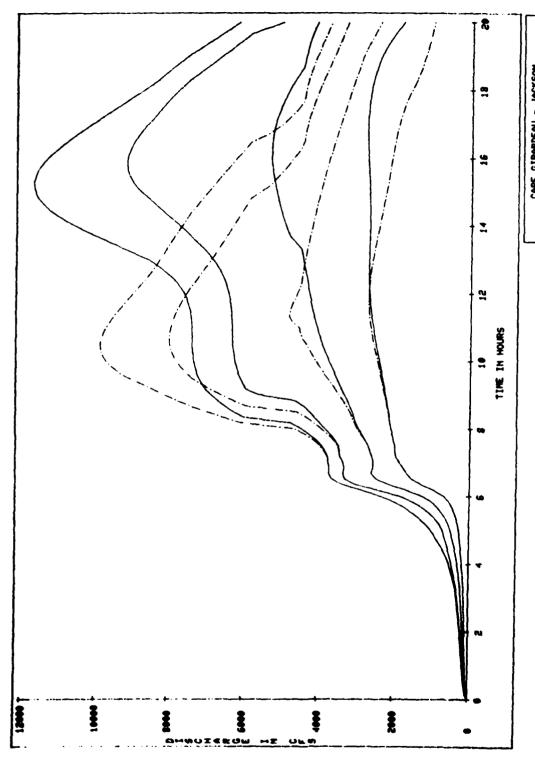
....... 2, 10, 100, 500 VR. STORM - FUTURE UITH SPF PLAN



CAPE GIRARDEAU - JACKSON
METROPOLITAN AREA
MISSOURI 12053
RHYDROGRAPHS AT JCT. OF CAPE & WALKERS
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS, MO.

2, 10, 100, 500 YR. STORM - FUTURE WITHOUT

........ 2, 10, 100, 500 YR. STORM - FUTURE UITH SPF PLAN

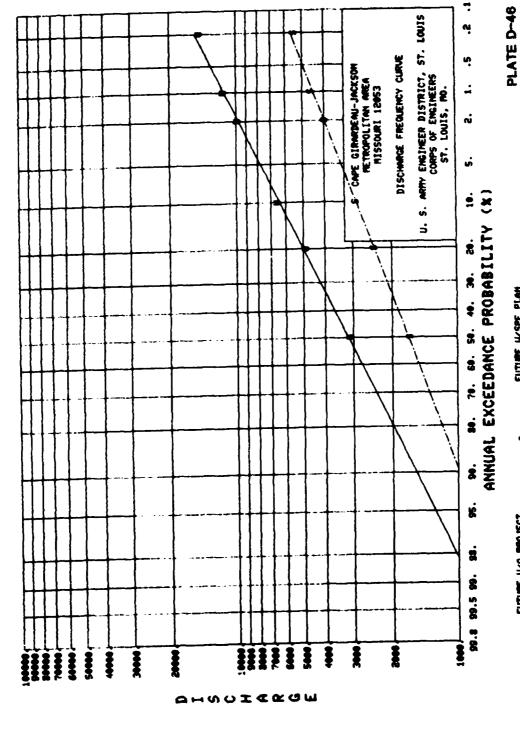


2, 10, 100, 500 VR. STORM - FUTURE WITHOUT

------ 2, 10, 100, 500 VR. STORM - FUTURE UITH SPF PLAN

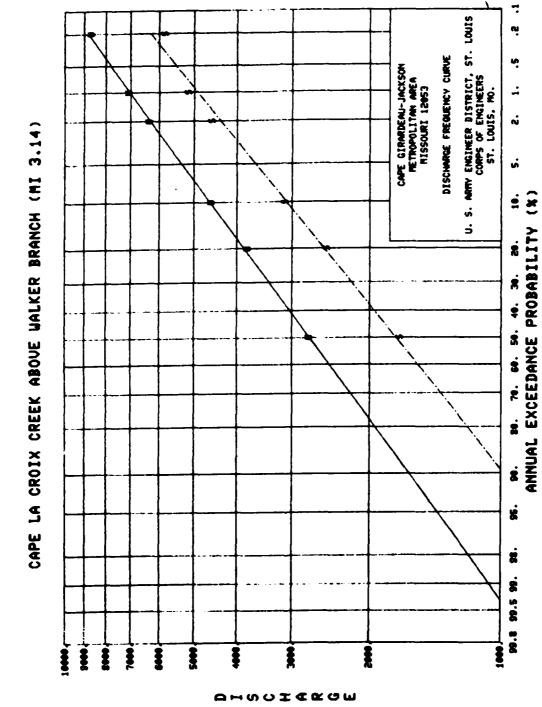
AHVDROGRAPHS AT MOUTH OF CAPE LA CROIXE
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS, MO.

CAPE LA CROIX CREEK AT HOPPER ROAD (MI 5.11)



FUTURE WAPF PLAN

FUTURE U/O PROJECT

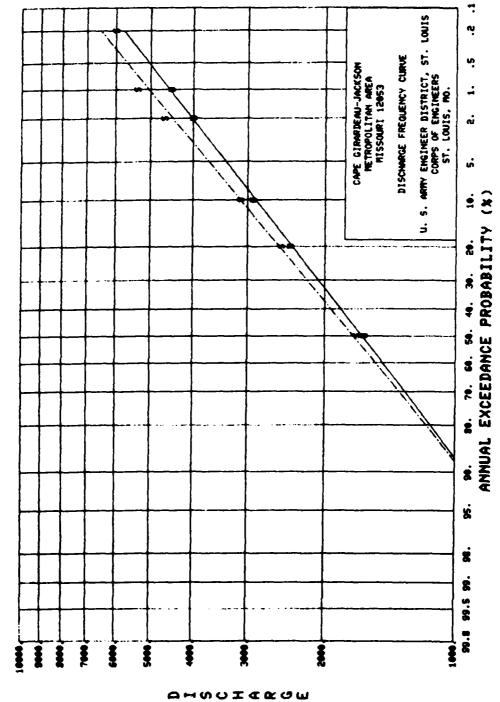


70 PROJECT

FUTURE WARF PLAN

FUTURE U/O PROJECT

WALKER BRANCH AT BESSIE STREET (MI 0.59)



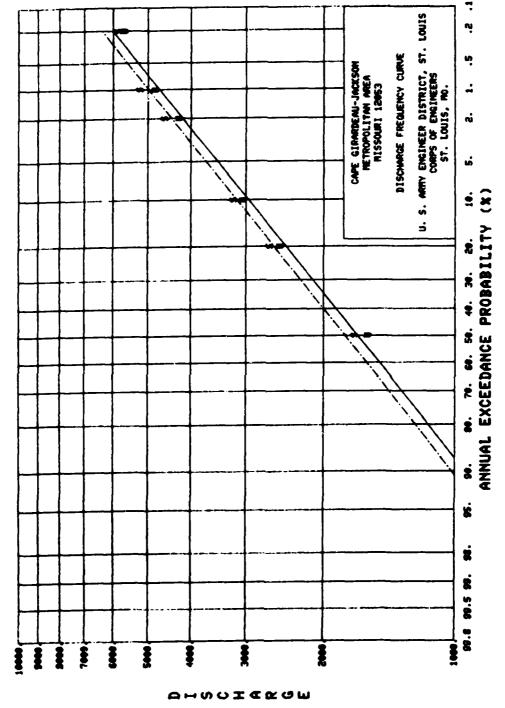
FUTURE 4/0 PROJECT

FUTURE WASPF PLAN

FUTURE LYSPE PLAN

FUTURE UND PROJECT

BALKER BRANCH AT MOUTH (MI 0.00)



CAPE LA CROIX BELOW WALKER BRANCH (MI 3.10)

ŧ

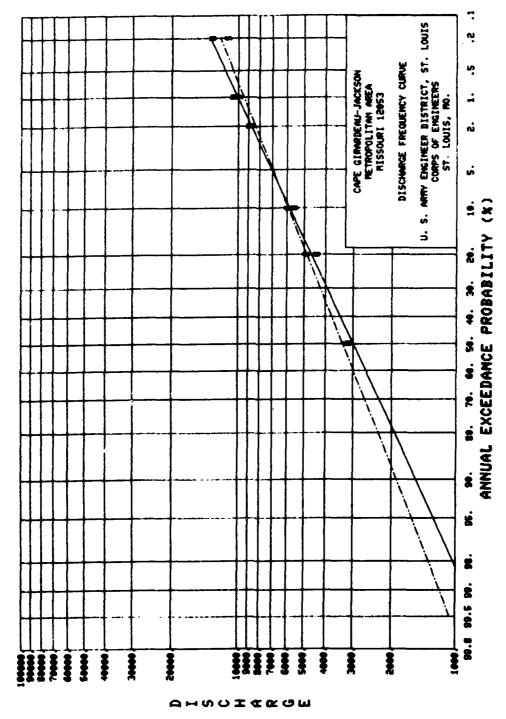


PLATE D-50

FUTURE LYSPF PLAN

FUTURE UND PROJECT

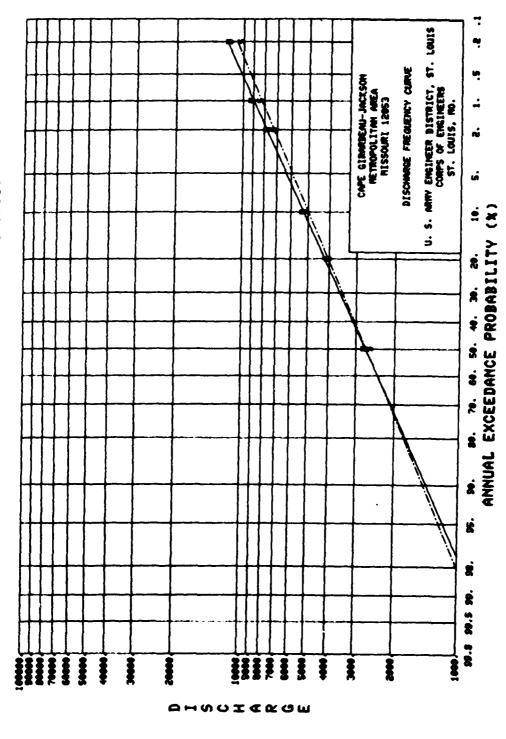
A STATE OF THE STA

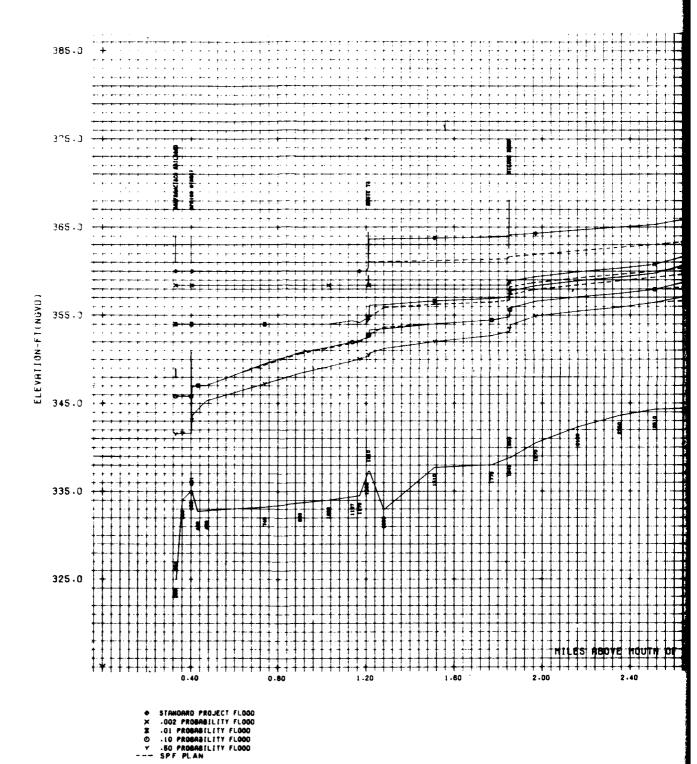
. . .

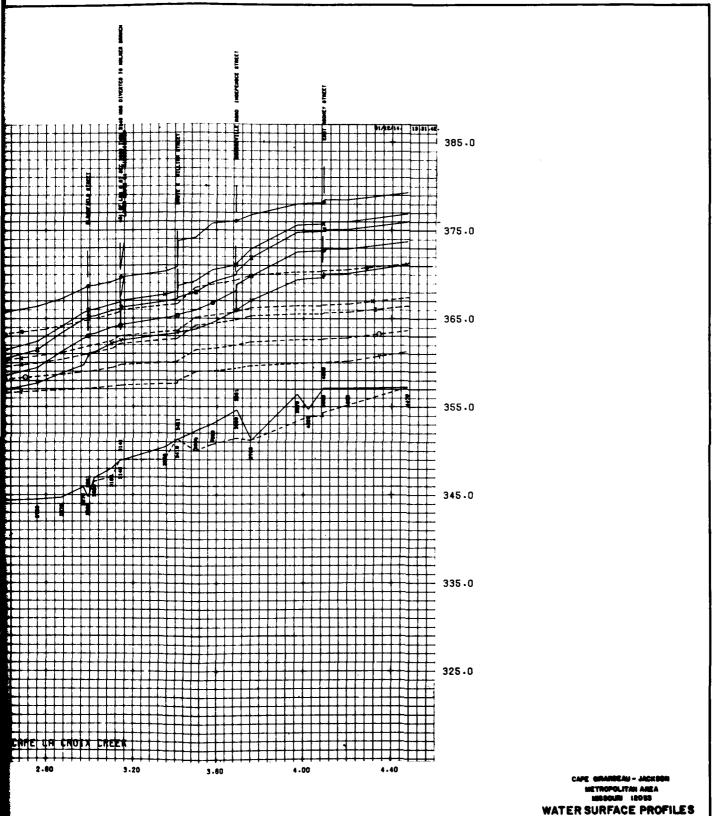
FUTURE LYSPE PLAN

FUTURE UND PROJECT

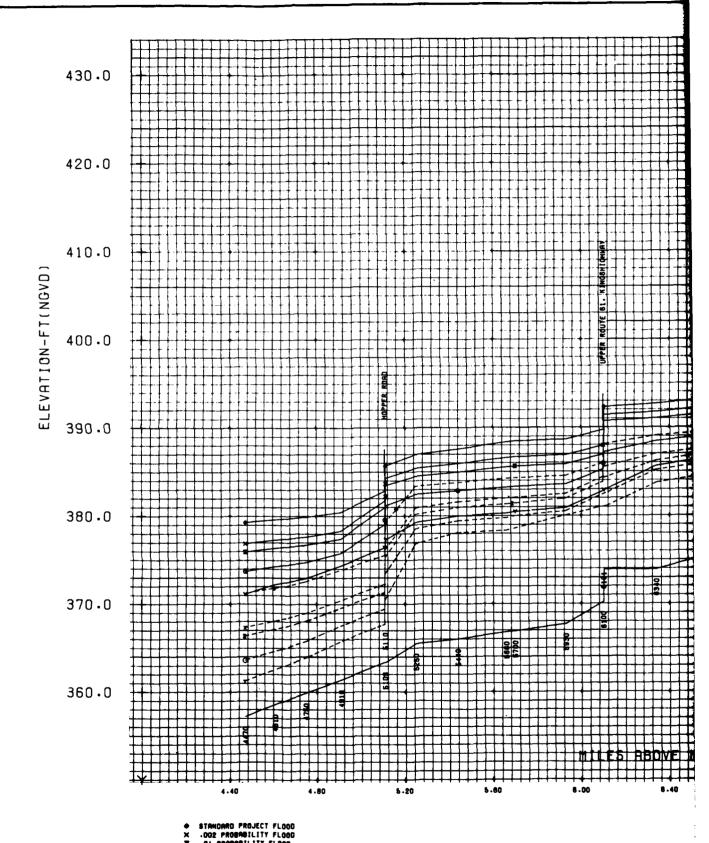
CAPE LA CROIX CREEK AT MOUTH (MI 0.00)

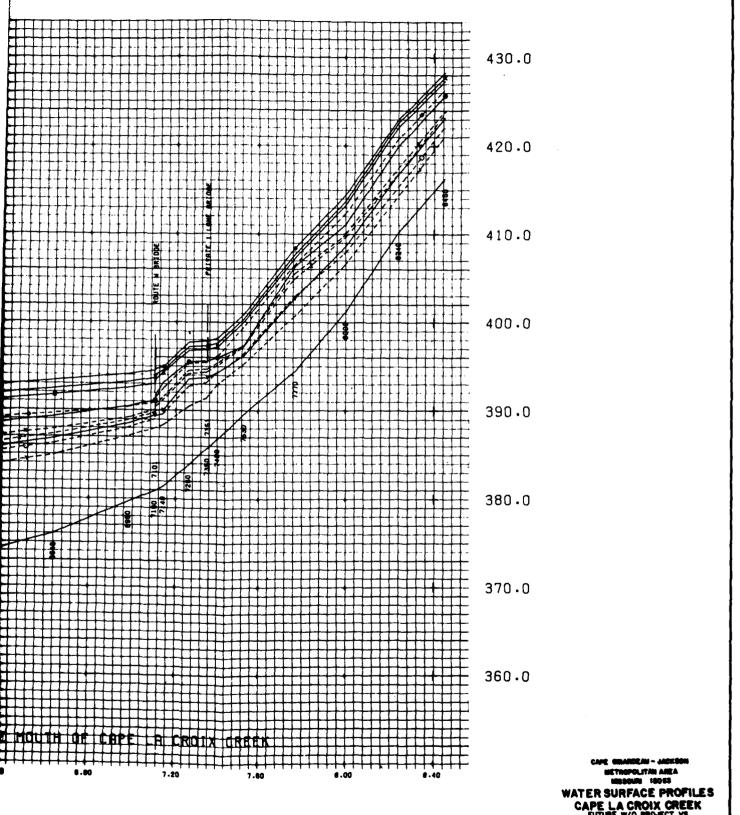


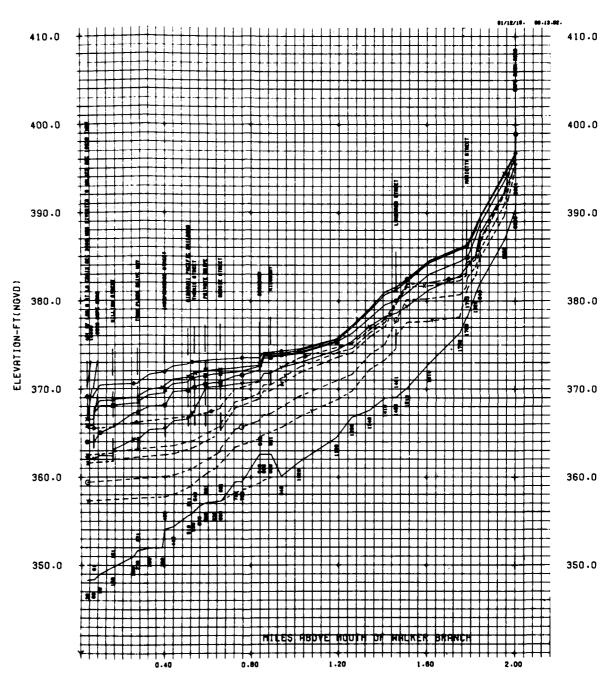




CAPE LA CROIX CREEK



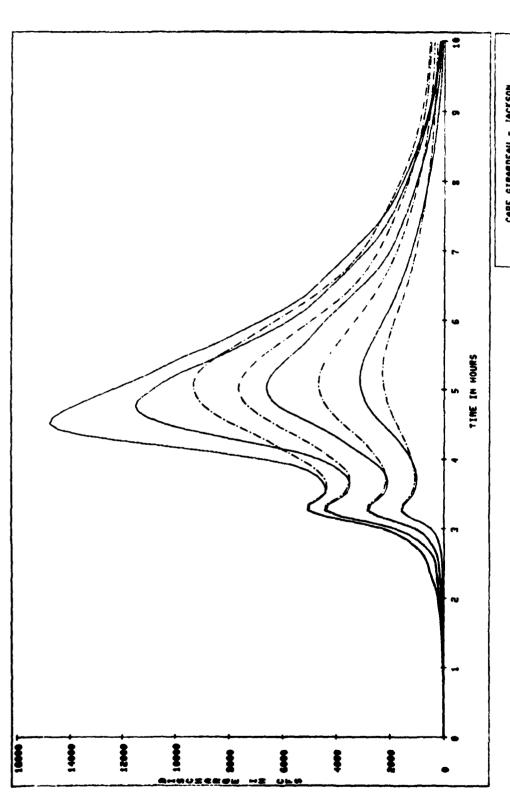




STANDARD PROJECT FLOOD .002 PROBABILITY FLOOD .01 PROBABILITY FLOOD .10 PROBABILITY FLOOD .50 PROBABILITY FLOOD SPF PLAN

METROPOLITAN AREA MISSOURI 18063 WATER SURFACE PROFILES WALKER BRANCH FUTURE W/O PROJECT VS FUTURE W/SPF PLAN FUTURE W/SPF PLAN 97. LOUIS, MA.

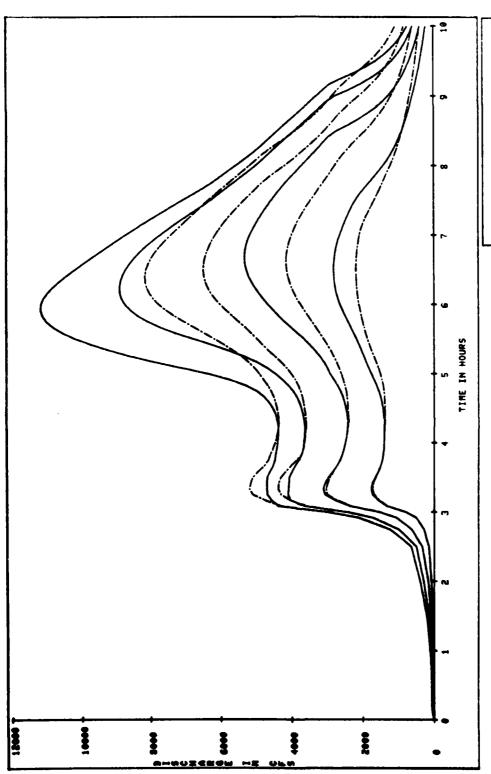
PLATE D-55



U.S. ARNY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MO. SHYDROGRAPHS AT HOPPER ROADS CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

2, 10, 100, 500 YR. STORM - FUTURE WITH RECOMMENDED PLAN

2, 10, 100, 500 VR. STORM - FUTURE UITHOUT

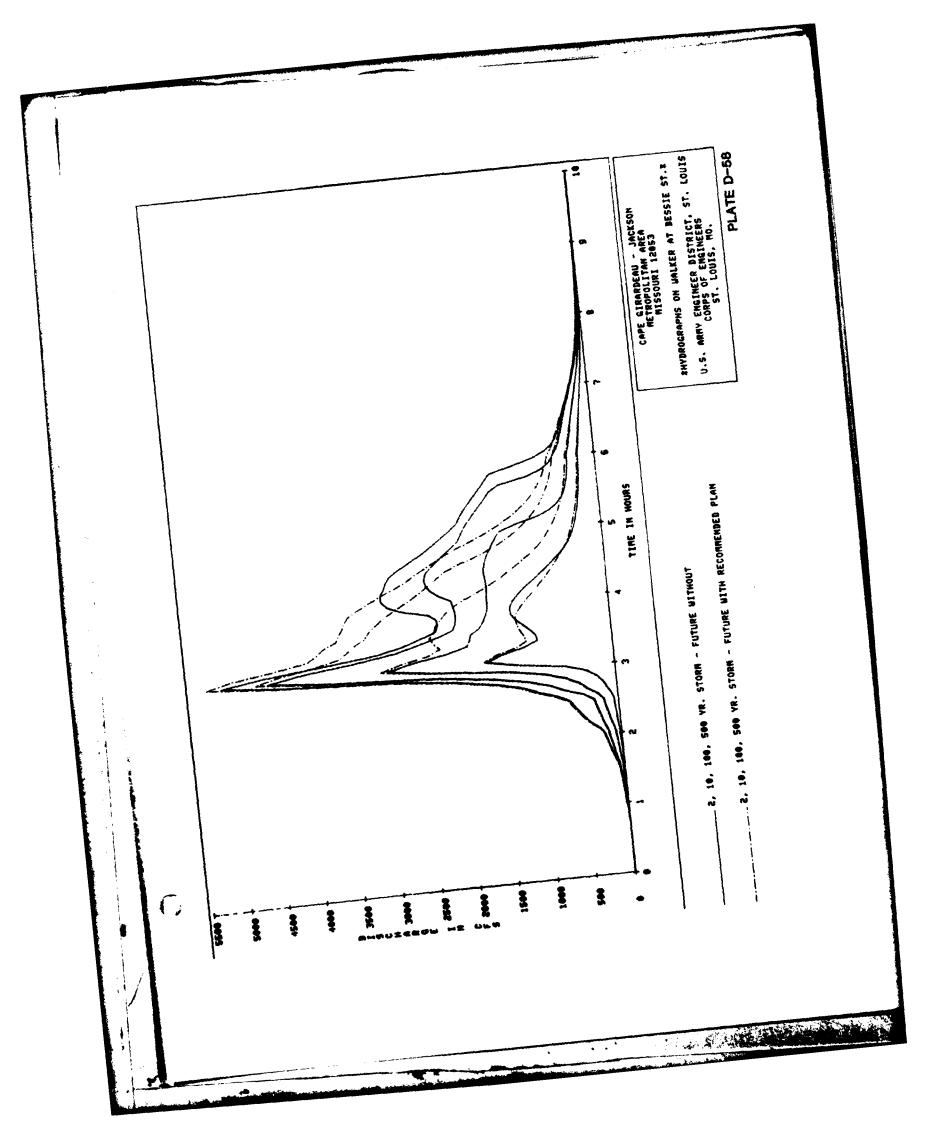


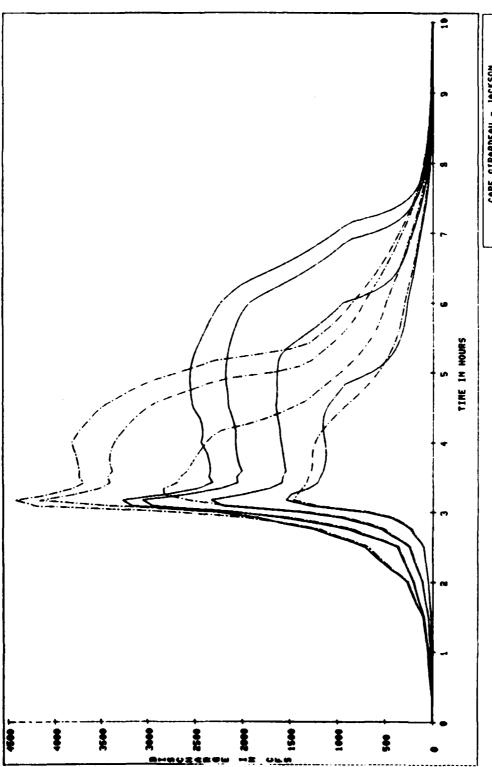
2, 10, 100, 500 YR. STORM - FUTURE ULTHOUT

.2, 10, 100, 500 YR. STORM - FUTURE UITH RECOMMENDED PLAN

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MO. HYDROGRAPHS AT LOUER RT 61 BPIDGE CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

Plate D-57

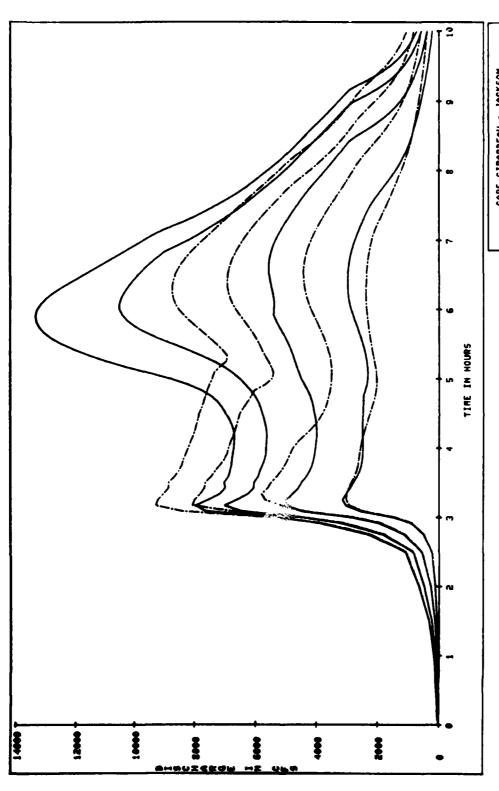




2, 10, 100, 500 YR. STORM - FUTURE UITHOUT

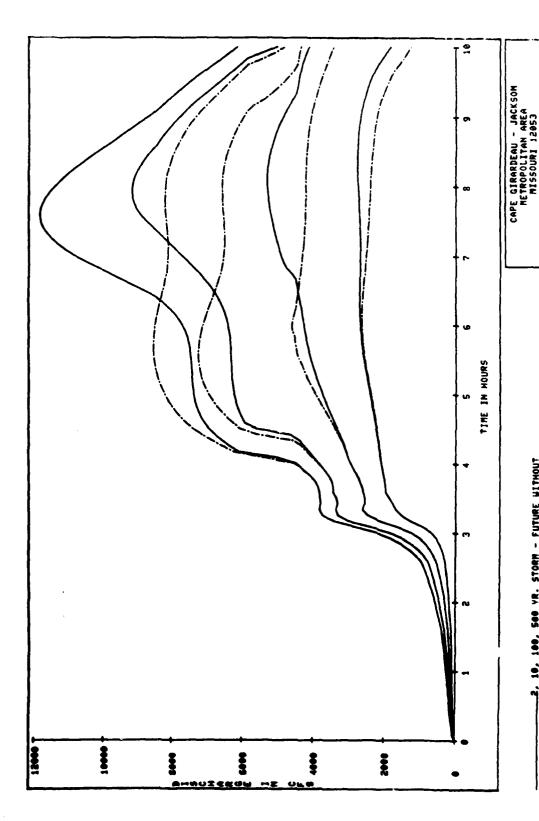
-.. 2, 10, 100, 500 YR. STORM - FUTURE WITH RECORDENDED PLAN

U.S. ARRY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MO. EHYDROGRAPHS ON UALKER AT MOUTHE CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053



2, 10, 100, 500 VR. STORM - FUTURE LITHOUT

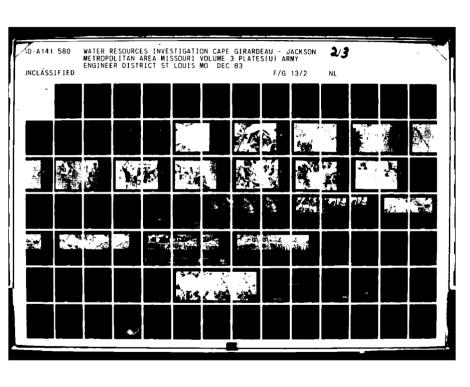
CAPE GIRARDENU - JACKSON
NETROPOLITAN AREA
NISSOURI 12053
WYDROGRAPHS AT JCT. OF CAPE & WALKER
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
ST. LOUIS, MO.



-.. Z. 10, 100, 500 VR. STORM - FUTURE UITH RECOMMENDED PLAN 2, 10, 100, 500 VR. STORM - FUTURE UITHOUT

A CONTRACTOR OF THE SECOND

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, NO. HYDROGRAPHS AT MOUTH OF CAPE LA CROIX

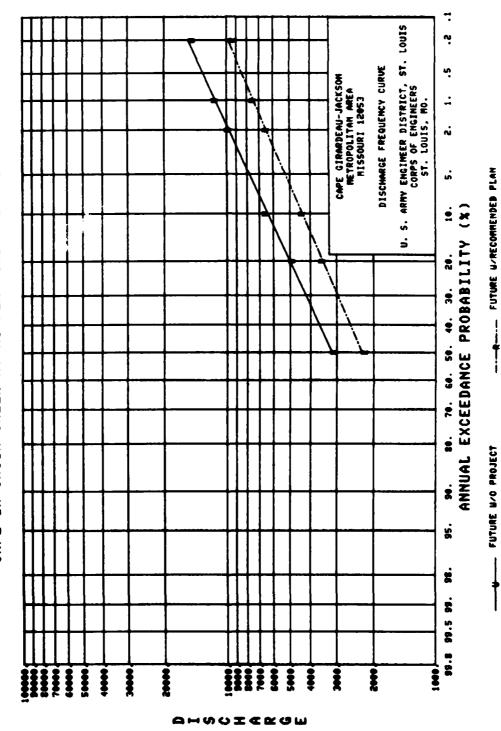


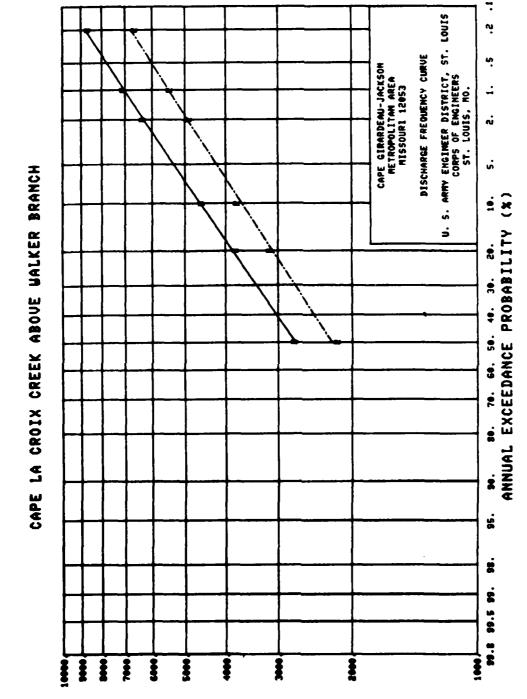


MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

A CONTRACTOR OF THE PARTY OF TH

CAPE LA CROIX CREEK AT HOPPER ROAD (NI 5.11)





BHSOT CEGM

•

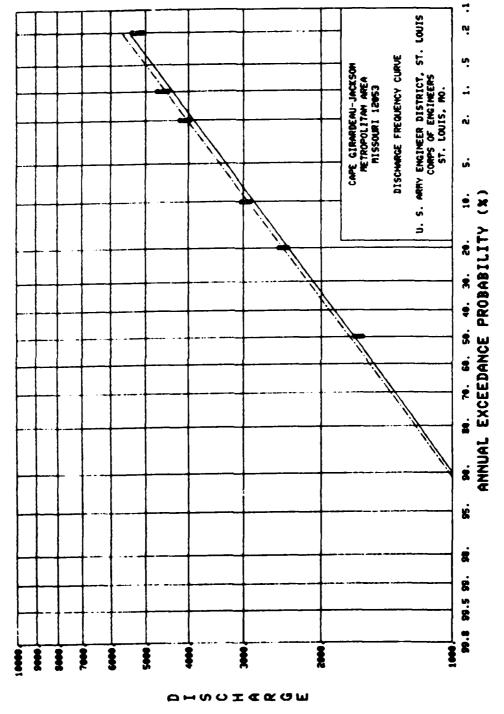
FUTURE U/O PROJECT

----- FUTURE U/RECOMMENDED PLAN

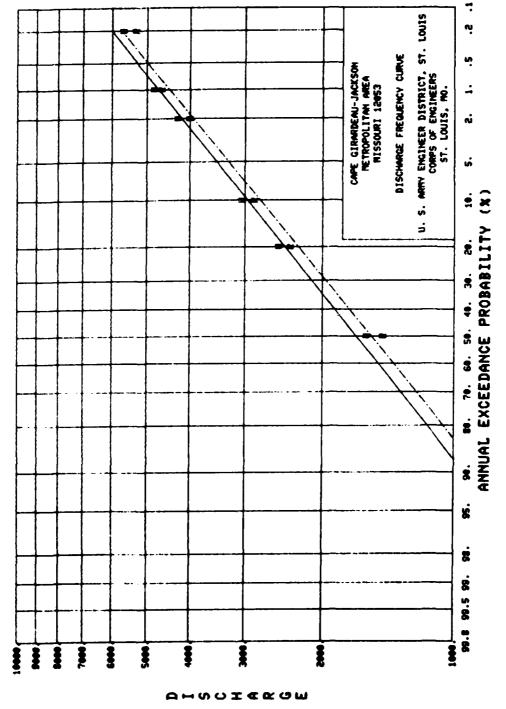
FUTURE W/RECOMMENDED PLAN

FUTURE U/O PROJECT

UALKER BRANCH AT BESSIE STREET(MI .59)



LALKER BRANCH AT MOUTH (MI 0.00)



FUTURE U/O PROJECT

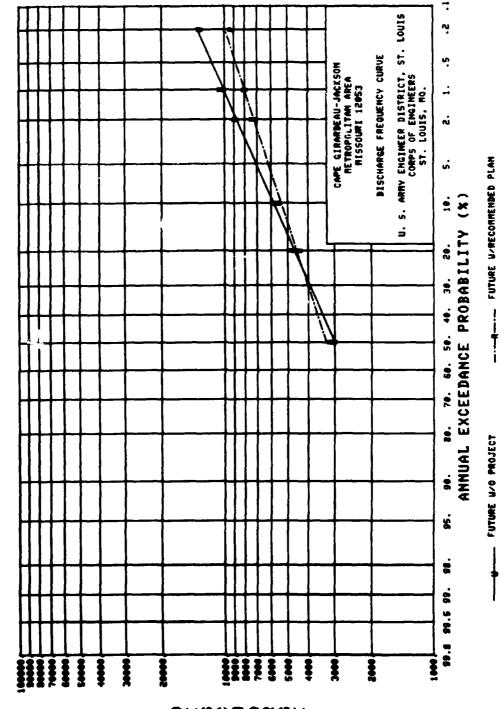
FUTURE U/RECOMMENDED PLAN

LA IE

1 4 5 5

CAPE LA CROIX CREEK BELOU WALKER BRANCH

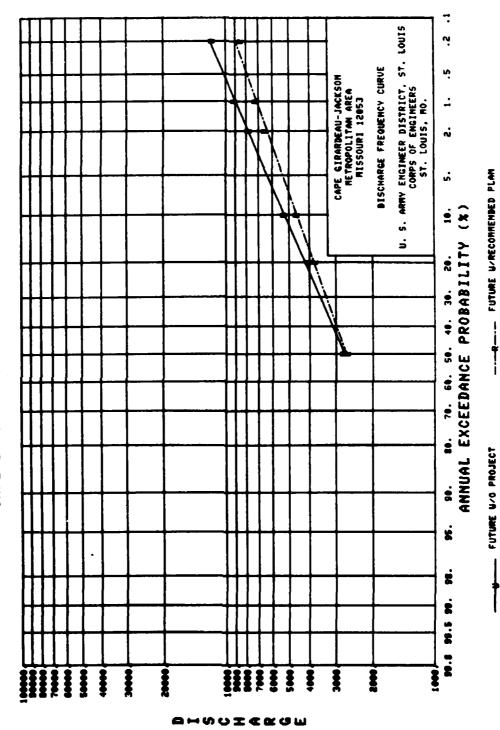
Maria

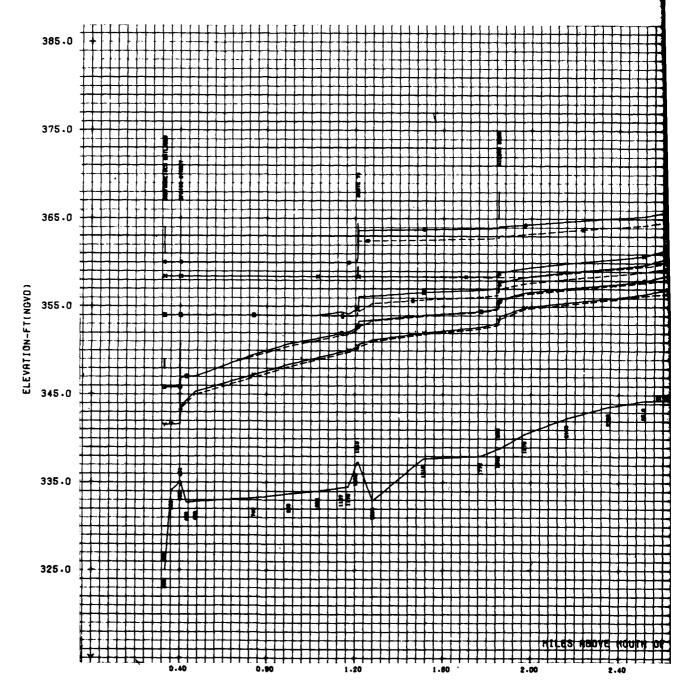


ひてらじれんたらに

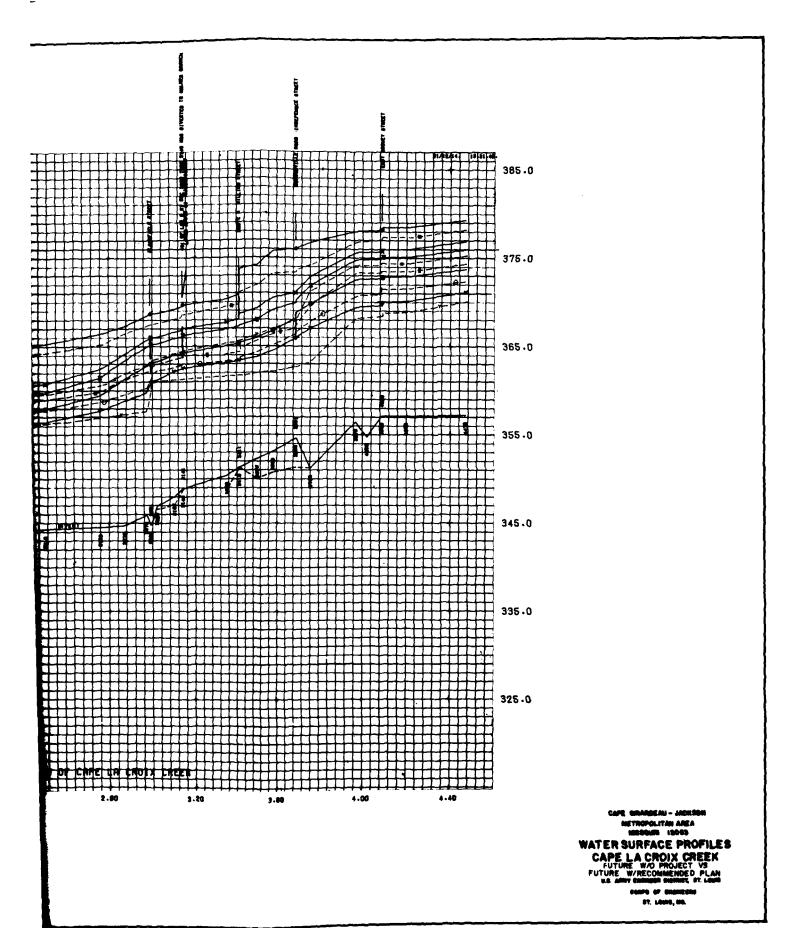
The state of the s

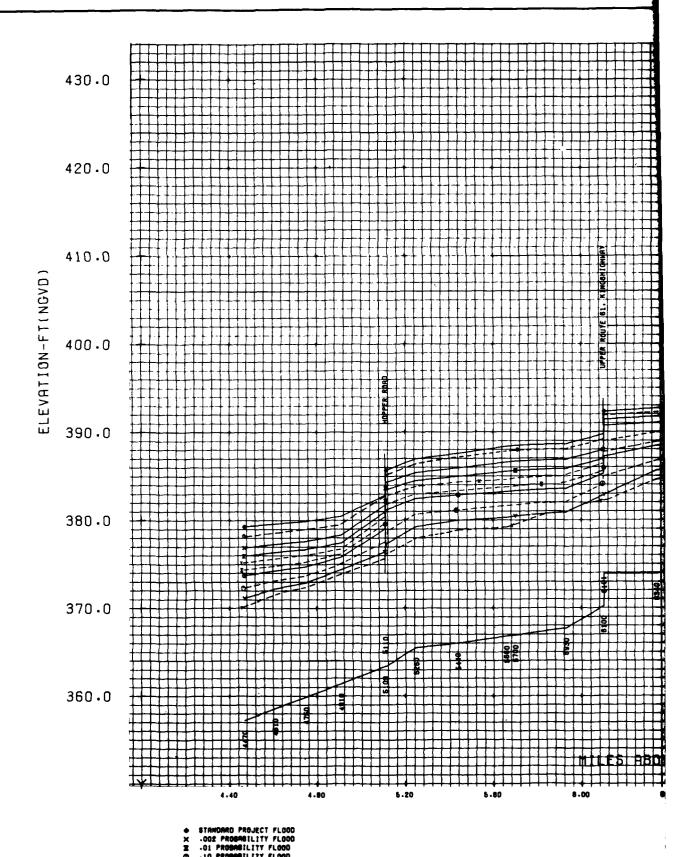
CAPE LA CROIX AT MOUTH (MI 0.00)

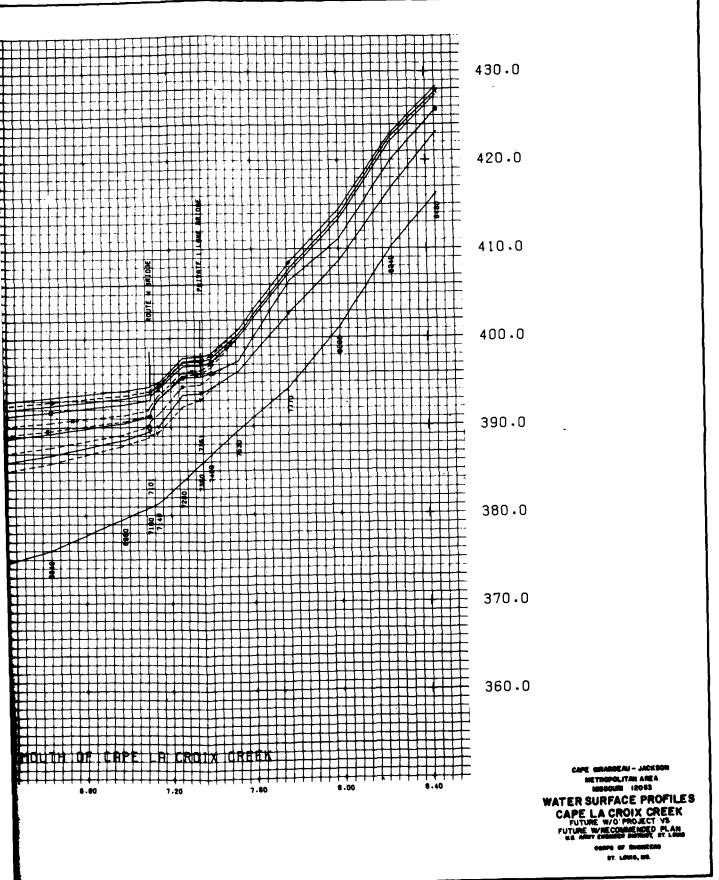


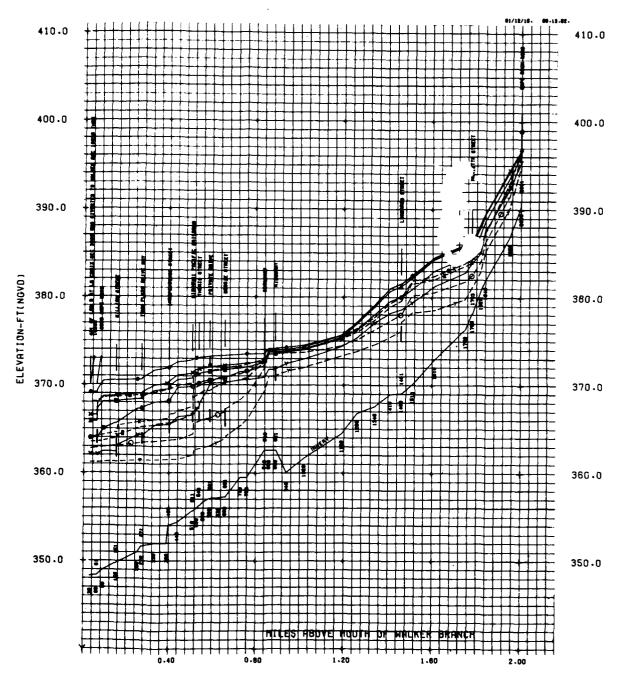


STANDARD PROJECT FLOOD .002 PROSMBILITY FLOOD .01 PROSMBILITY FLOOD .10 PROSMBILITY FLOOD .50 PROSMBILITY FLOOD -RECOMMENDED PLAN









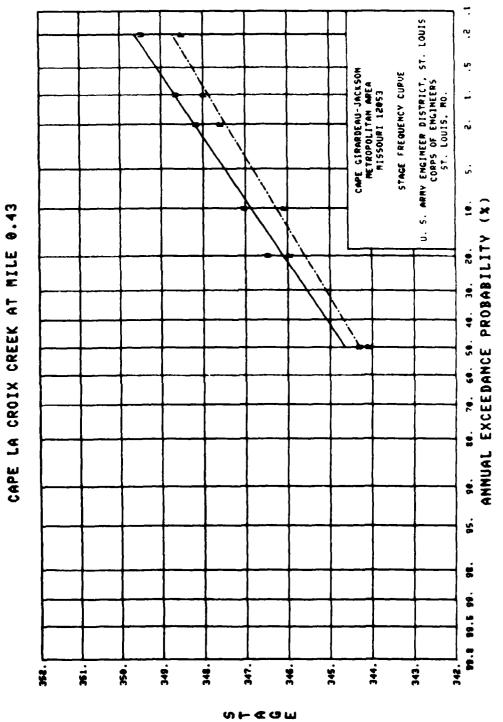
- STRNORD PROJECT FLOOD
 .002 PROSRBILITY FLOOD
 .01 PROSRBILITY FLOOD
 .10 PROSRBILITY FLOOD
 .50 PROSRBILITY FLOOD
 .TRECOMMENDED PLAN 0

MISSOURI 12053 WATER SURFACE PROFILES

CAPE GIRARDEAU - JACKSO

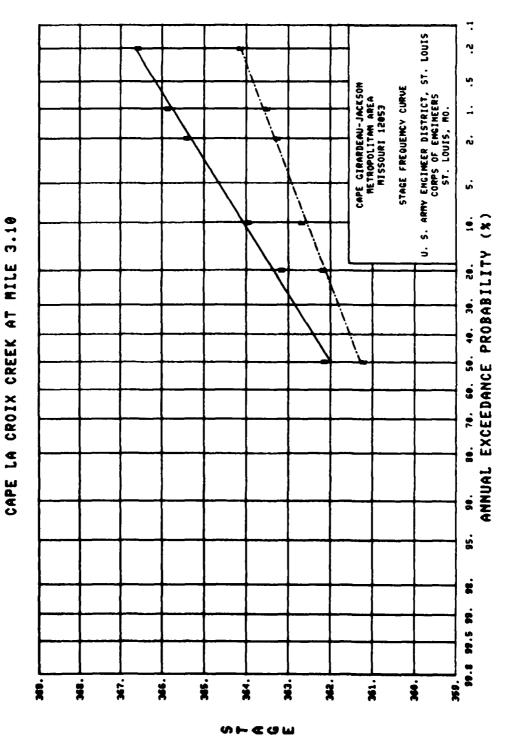
WALKER BRANCH
FUTURE W/O PROJECT VS
FUTURE W/RECOMMENDED PLAN
UR SHOW SHOWERS SHOWER, SE LONG

87. LOUIS, MA.



FUTURE BARECONNENDED PLAN

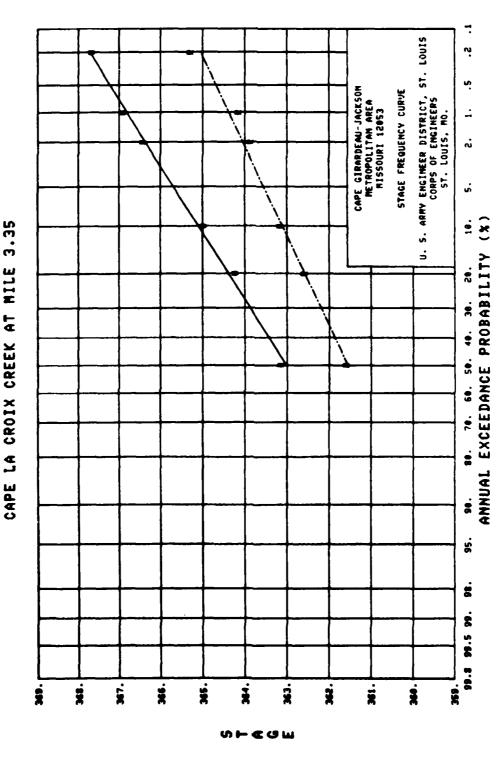
FUTURE BYO PROJECT



A ...

FUTURE U/O PROJECT

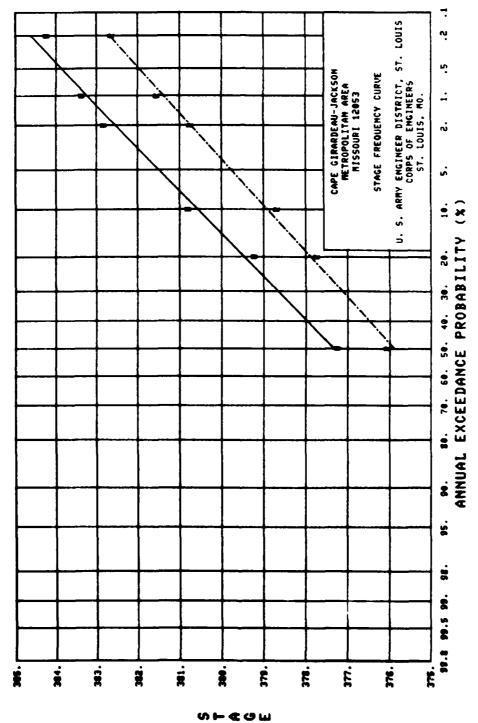
FUTURE BARCORNENDED PLAN



FUTURE U/O PROJECT

----- FUTURE WARCOMMENDED PLAN



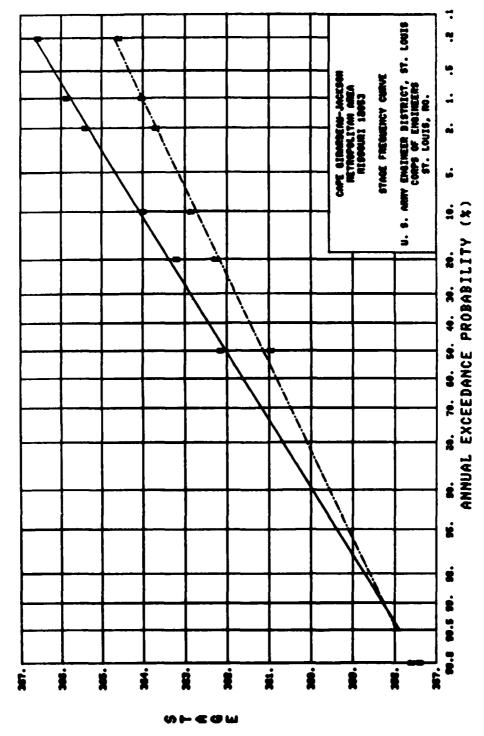


FUTURE U/O PROJECT

The second second

FUTURE WARCOMMENDED PLAN

UALKER BRANCH AT MILE 0.30

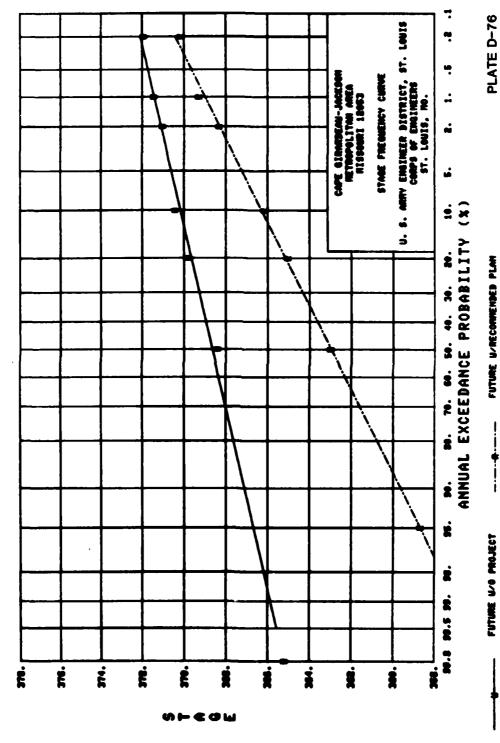


FUTURE MAD PROJECT

A CHARLES OF THE PARTY OF THE P

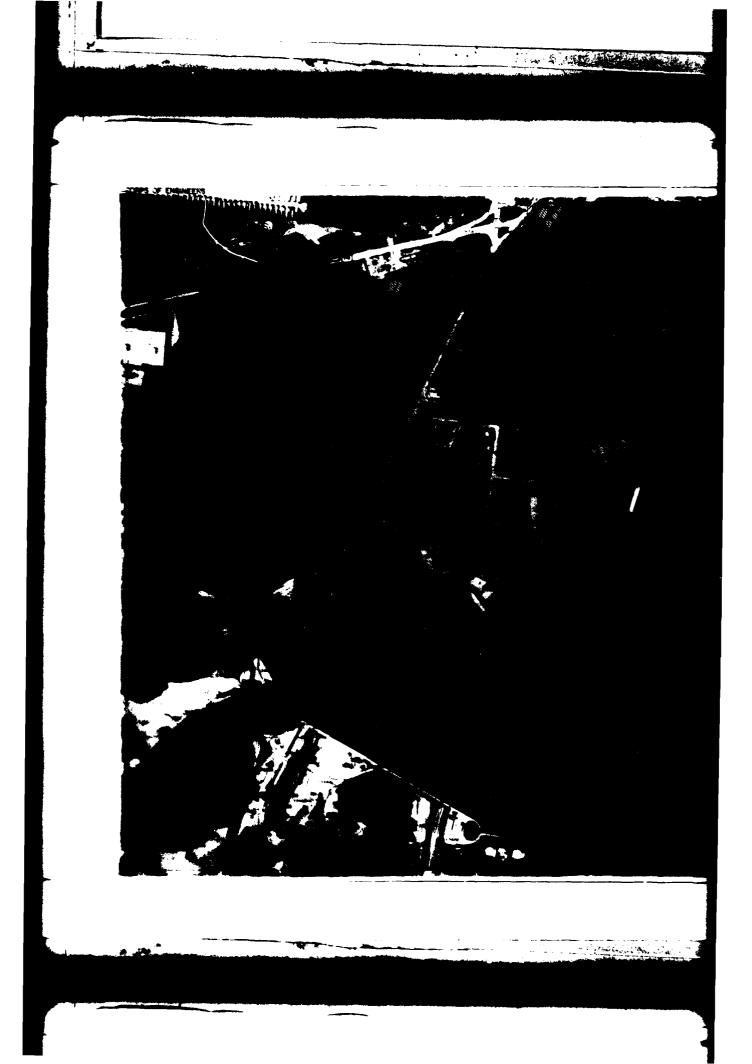
FUTURE U/RECOMMENDED PLAN

UALKER BRANCH AT MILE 0.59



A CARLON STATE OF THE STATE OF

24 A





10% PROBABILITY



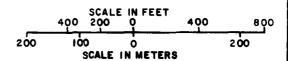
1% PROBABILITY



STANDARD PROJECT FLOOD

10 M

MILE



CAPE GIRARDEAU-JACKSON METROPOLITAN AREA MISSOURI 12053 CAPE LA CROIX CREEK FLOODED AREAS FUTURE W/RECOMMENDED PLAN

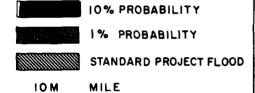
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS 87. LOUIS. MO.

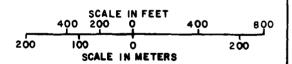
PLATE D-77











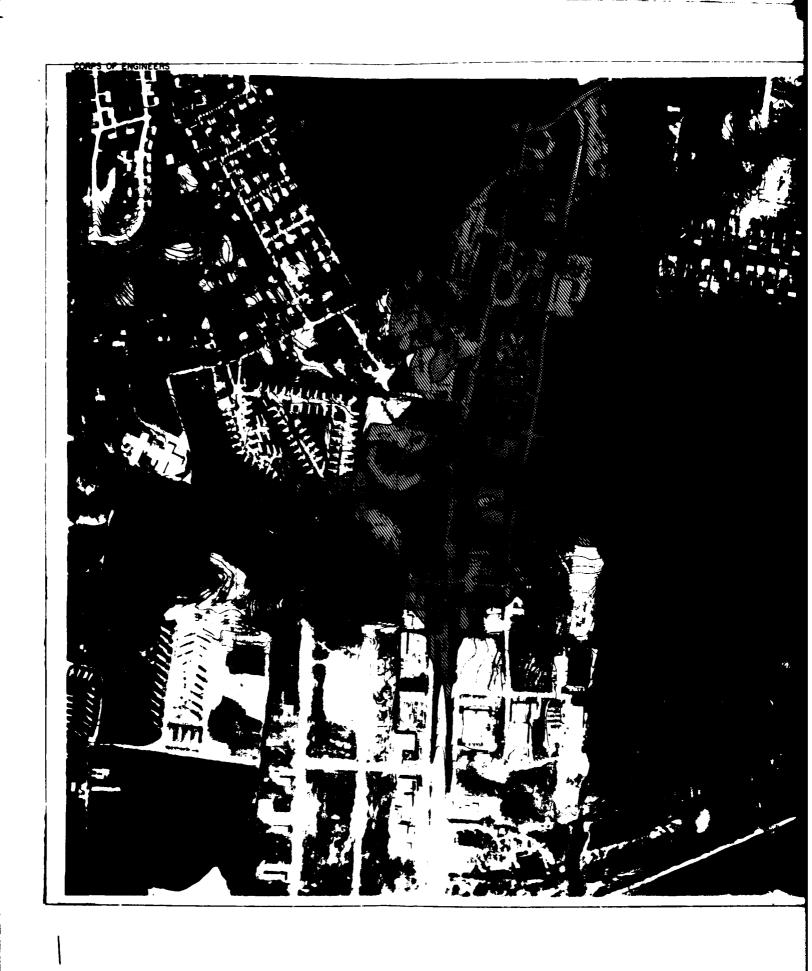
CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053 CAPE LA GROIX CREEK FLOODED AREAS

FUTURE W/RECOMMENDED PLAN

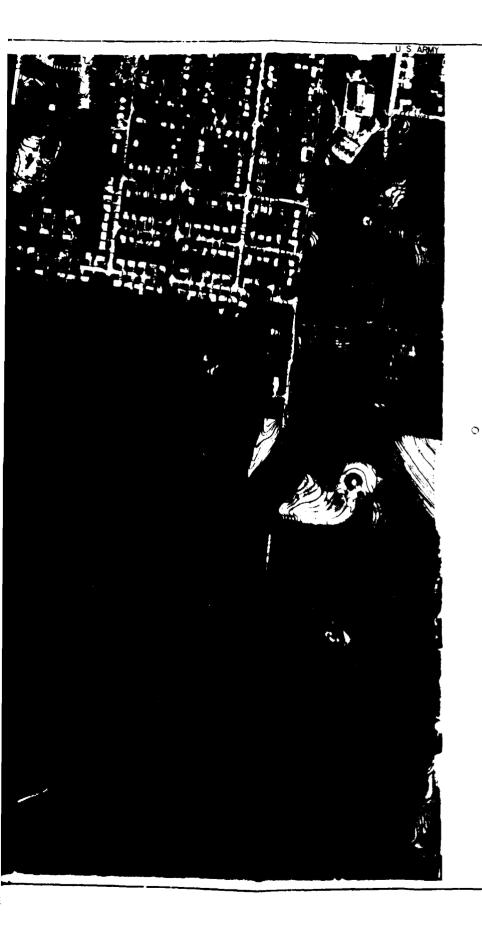
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS

CORPS OF ENGINEERS

ST. LOUIS, MO.



•



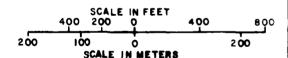


10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

10M MILE



CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053 CAPE LA CROIX CREEK FLOODED AREAS

FUTURE W/RECOMMENDED PLAN

U.S. ARMY ENGINEER DISTRICT. ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS. MO.







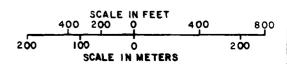
10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

10 M

MILE

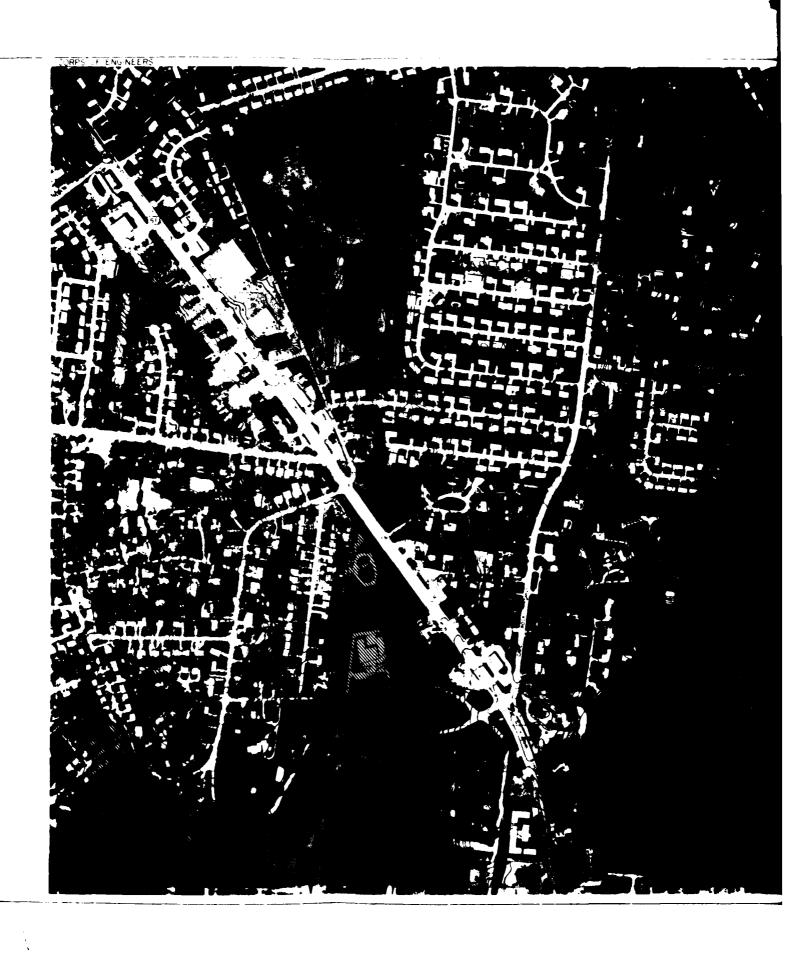


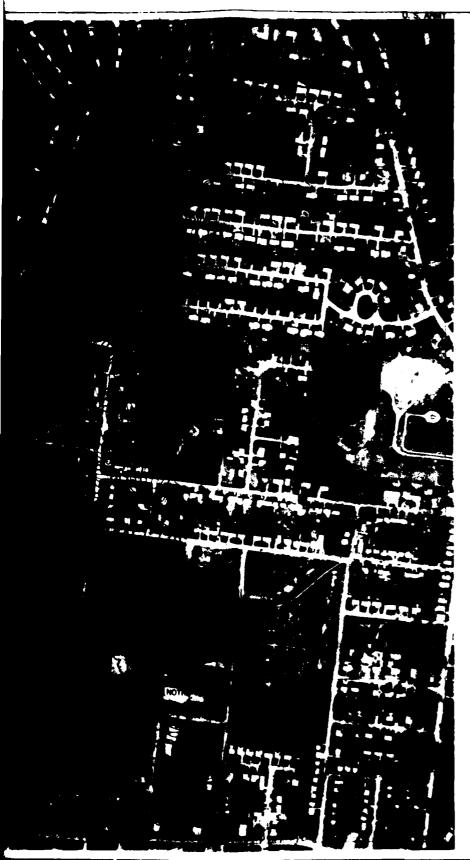
CAPE GIRARDEAU - JACKSON
METROPOLITAN AREA
MISSOURI 12053
CAPE LA CROIX CREEK
WALKER BRANCH
FLOODED AREAS
FUTURE W/RECOMMENDED PLAN

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS

CORPS OF ENGINEERS

ST. LOUIS, MO.







1

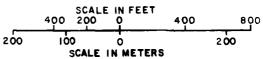
10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

10 M

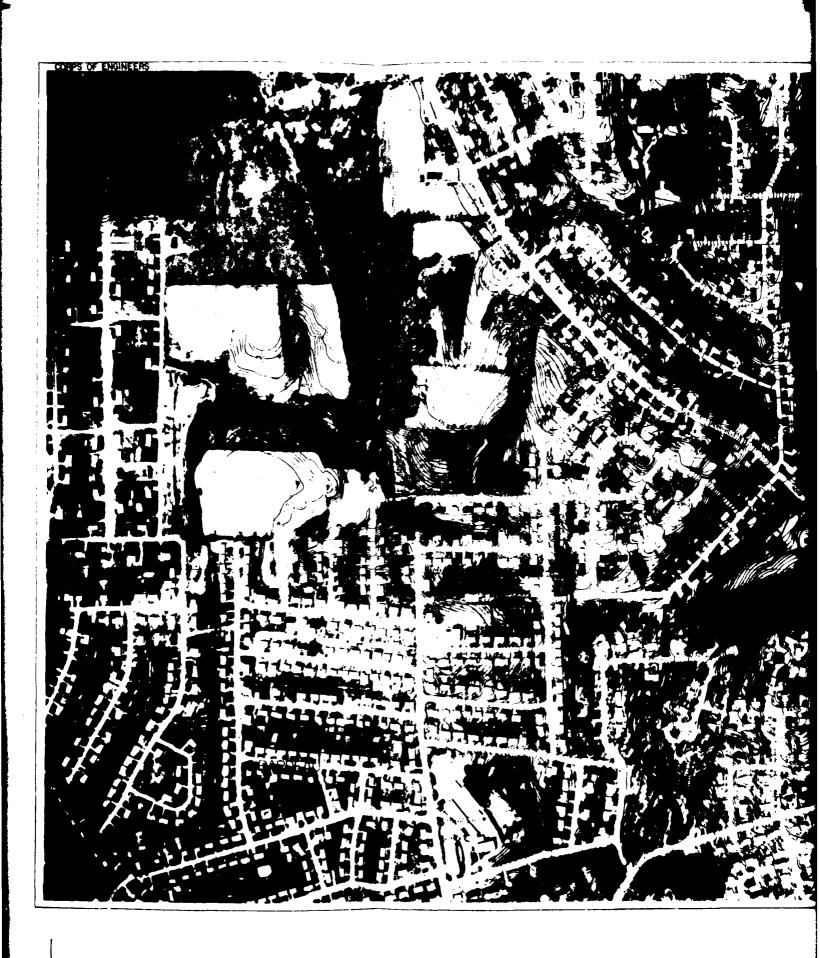
MILE



CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

WALKER BRANCH FLOODED AREAS FUTURE W/RECOMMENDED PLAN

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS, MO.





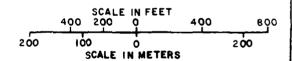


10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

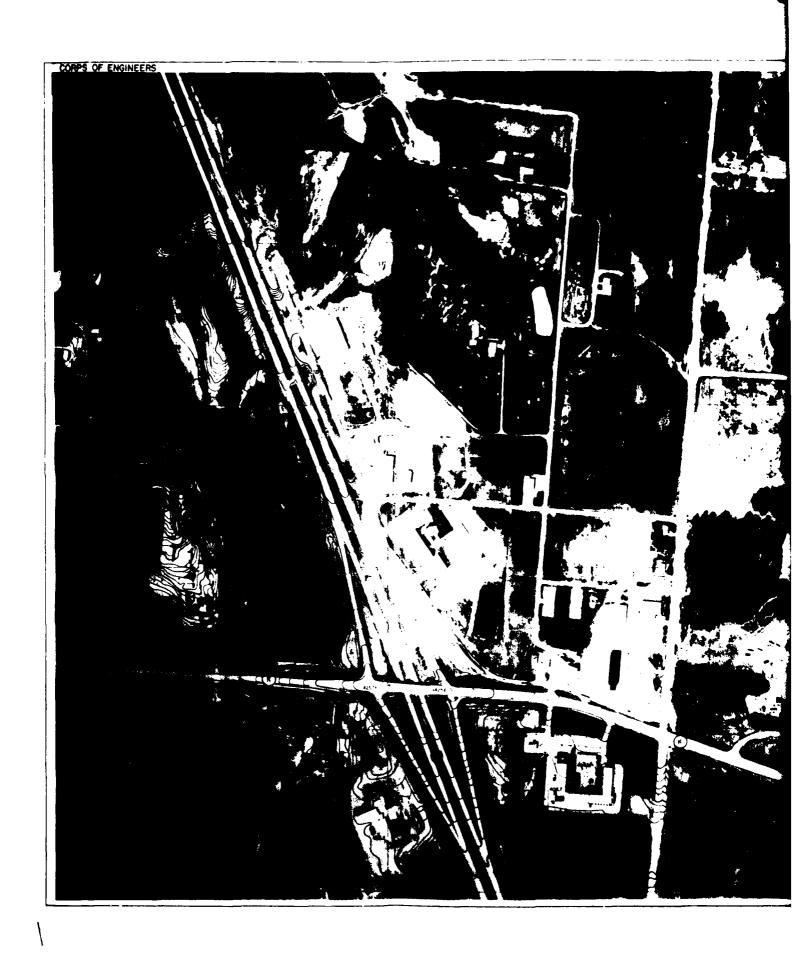
IOM MILE



CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

WALKER BRANCH
FLOODED AREAS
FUTURE W/RECOMMENDED PLAN

U.S ARMY ENGINEER DISTRICT, ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS, MO.





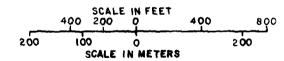


10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

IOM MILE



CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

CAPE LA CROIX CREEK
FLOODED AREAS
FUTURE W/RECOMMENDED PLAN

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS

CORPS OF ENGINEERS

ST. LOUIS, MO.







10% PROBABILITY

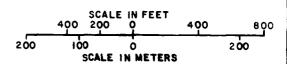


1% PROBABILITY

STANDARD PROJECT FLOOD

10 M

MILE



CAPE GIRARDEAU- JACKSON METROPOLITAN AREA MISSOURI 12053 CAPE LA CROIX CREEK

FLOODED AREAS FUTURE W/RECOMMENDED PLAN

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS. MO.







10% PROBABILITY



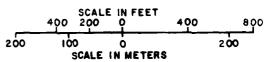
1% PROBABILITY



STANDARD PROJECT FLOOD

IO M

MILE



CAPE GIRARDEAU - JACKSON
METROPOLITAN AREA
MISSOURI 12053
CAPE LA CROIX GREEK
FLOODED AREAS
FUTURE W/RECOMMENDED PLAN

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS, MO.

PLATE D-85







The state of the s

10% PROBABILITY

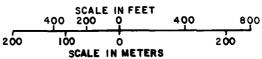


1% PROBABILITY



STANDARD PROJECT FLOOD

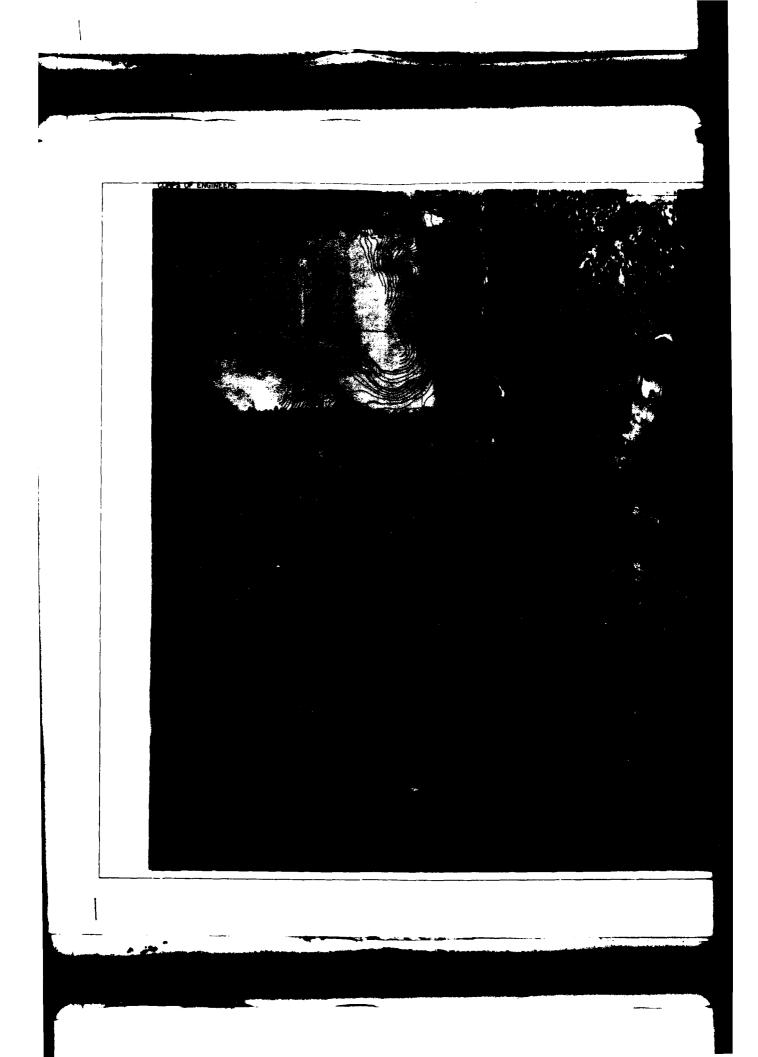
IOM MILE



CAPE GIRARDEAU - JACKSON
METROPOLITAN AREA
MISSOURI 12053
CAPE LA CROIX CREEK
FLOODED AREAS

FUTURE W/RECOMMENDED PLAN

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS, MQ.







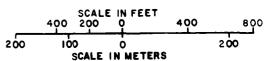
10% PROBABILITY

1% PROBABILITY

STANDARD PROJECT FLOOD

10 M

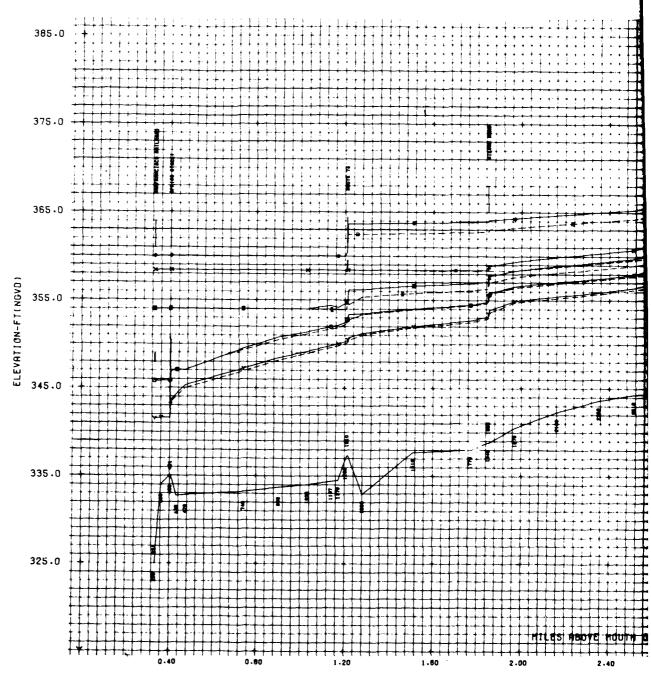
MILE



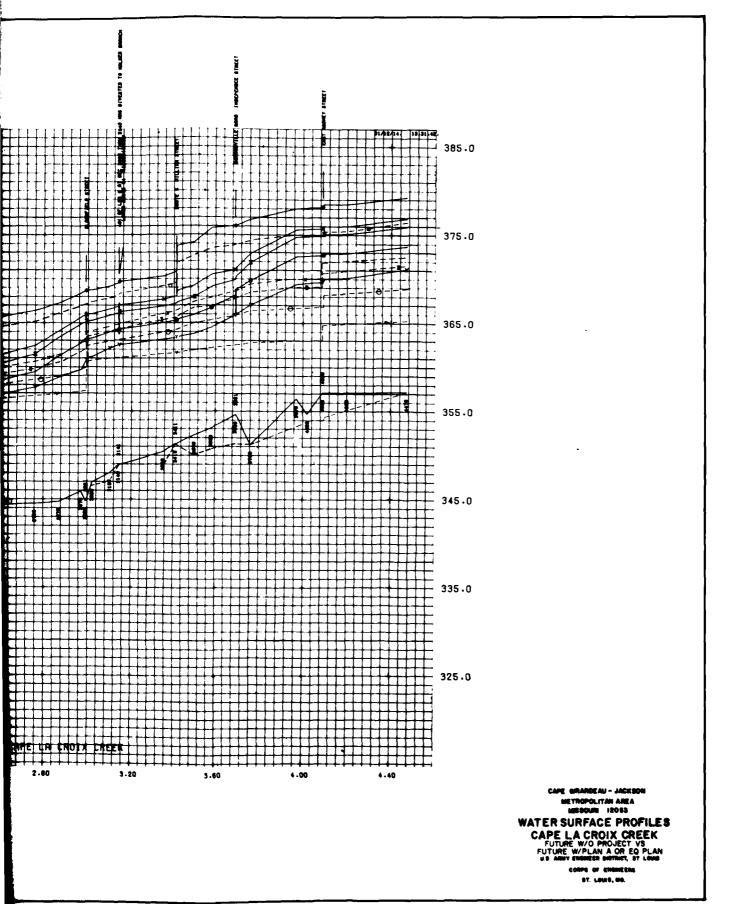
CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

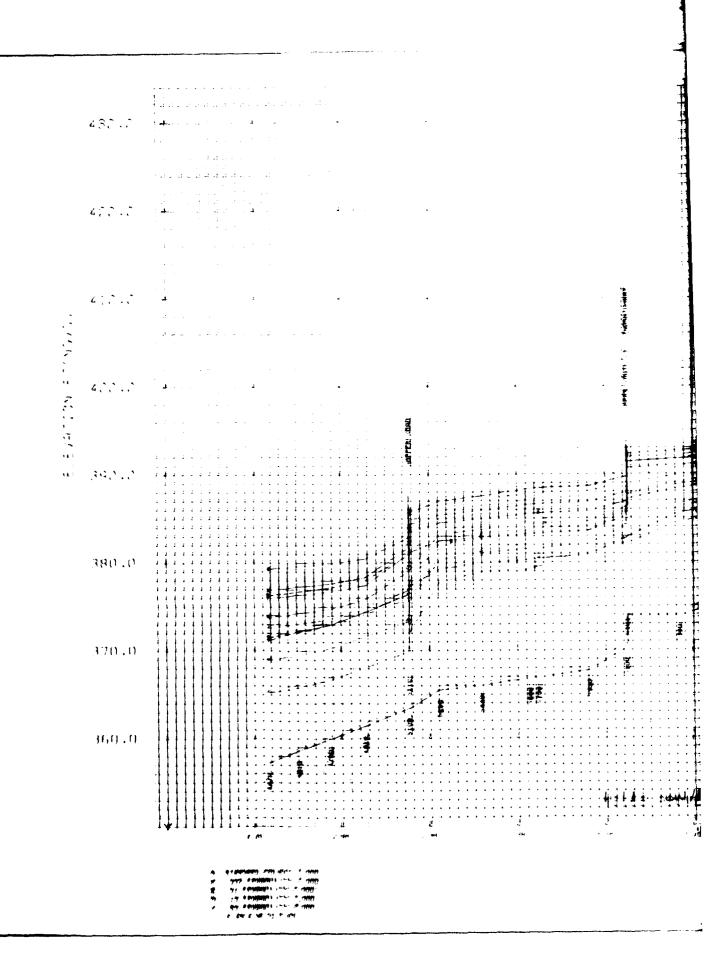
CAPE LA CROIX CREEK FLOODED AREAS FUTURE W/RECOMMENDED PLAN

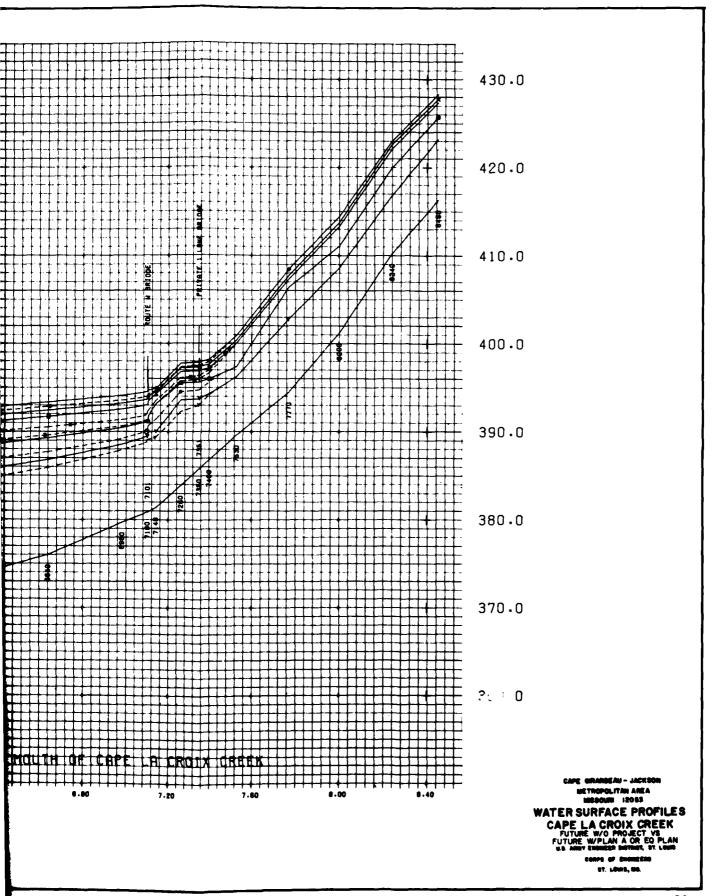
U.S. ARMY ENGINEER DISTRICT, ST. LOUIS
CORPS OF ENGINEERS
ST. LOUIS, MO.

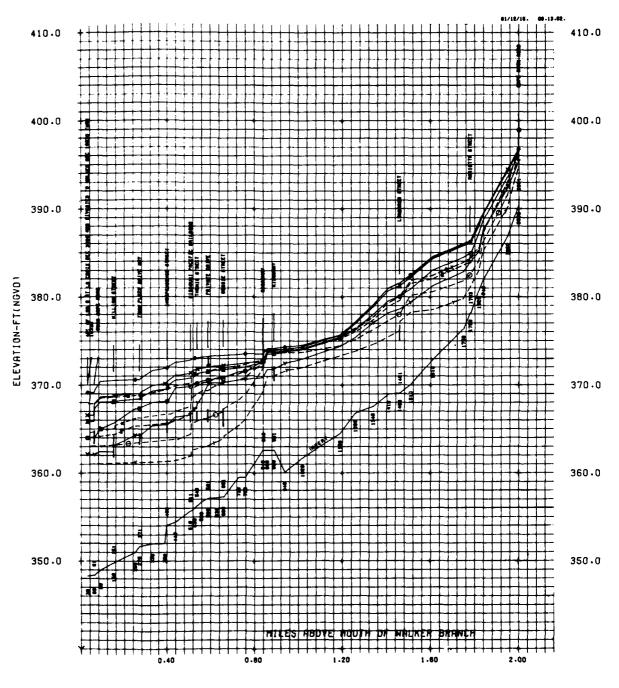


STANDARD PROJECT FLOOD .002 PROBABILITY FLOOD .01 PROBABILITY FLOOD .10 PROBABILITY FLOOD .50 PROBABILITY FLOOD -PLAN A OR EQ PLAN





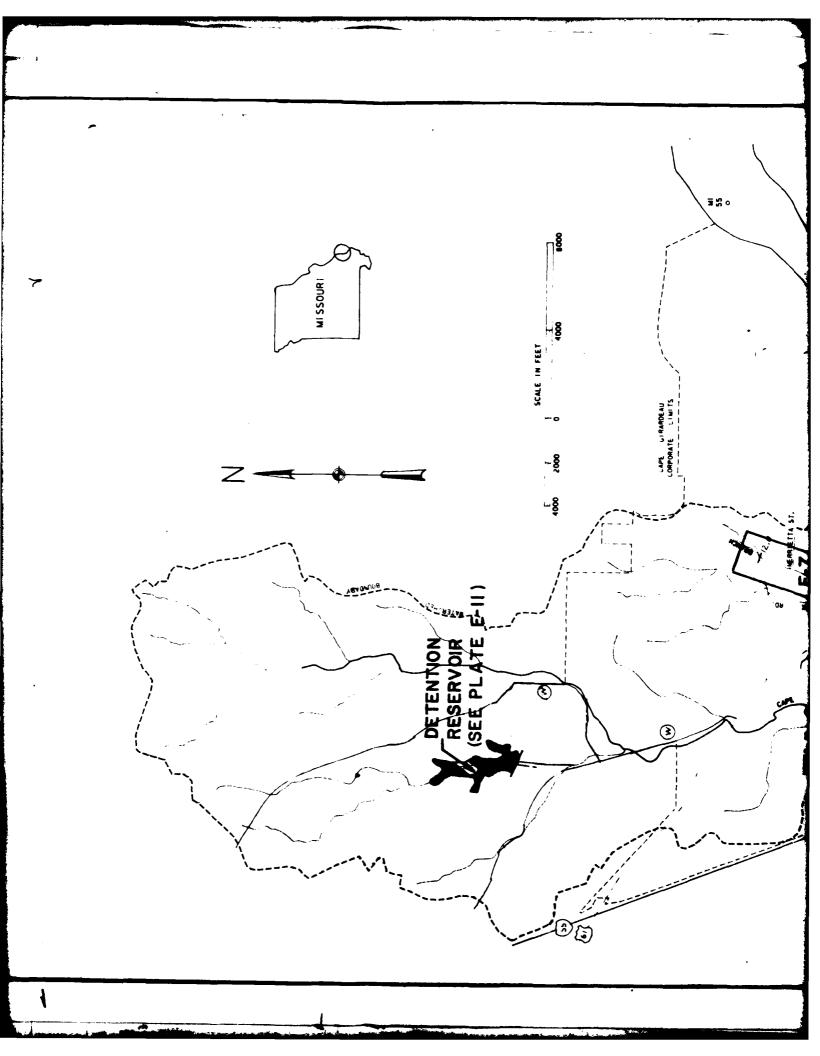


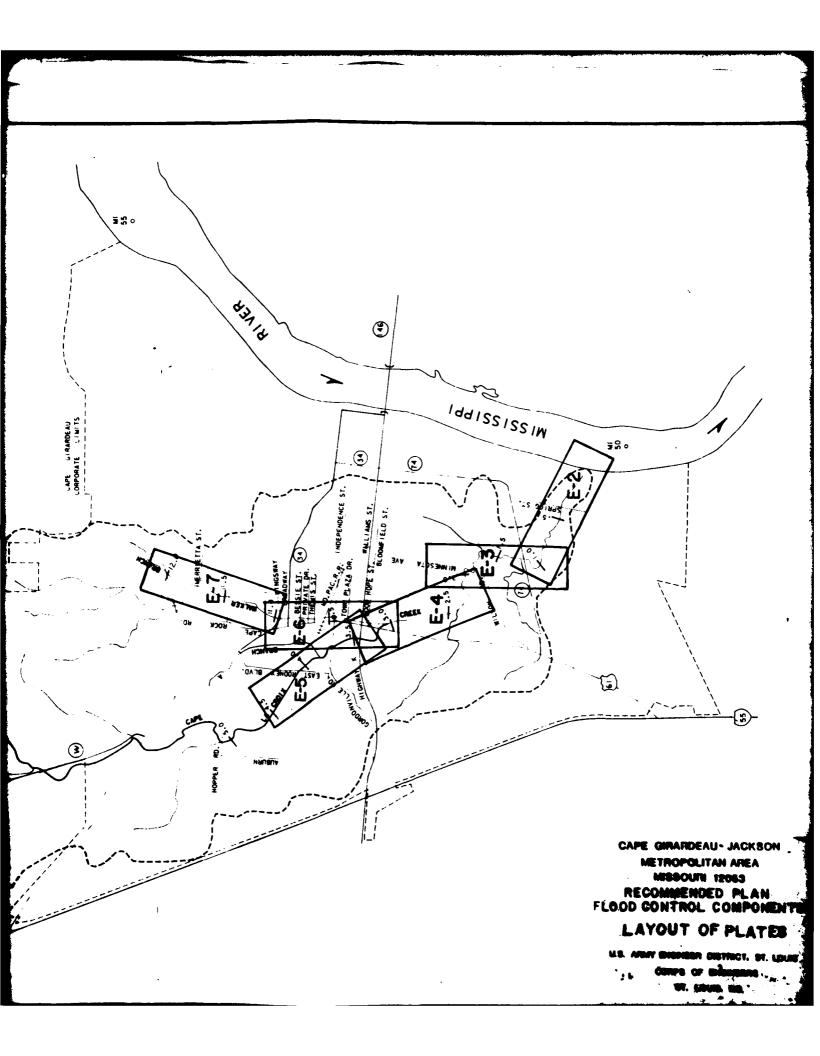


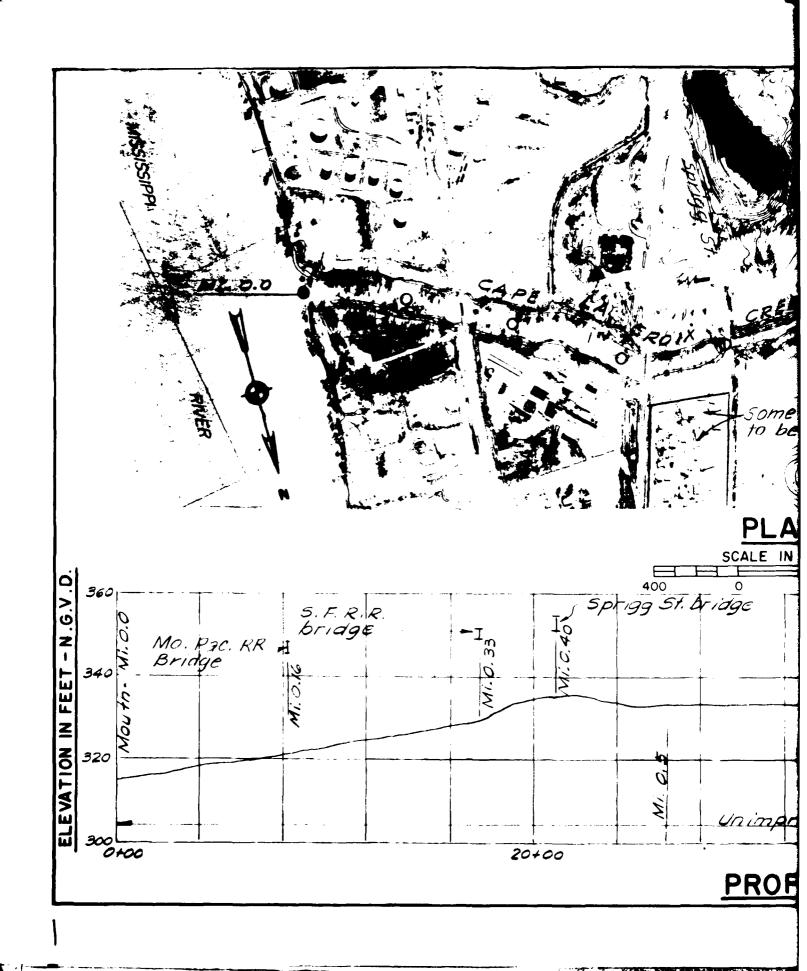
CAPE GRARDEAU-JACKSON
METROPOLITAN AREA
MISSOURI 12033
WATER SURFACE PROFILES
WALKER BRANCH
FUTURE W/O PROJECT V3
FUTURE W/PLAN A OR EQ PLAN
US AND SURGEST OUTURE, BY LONG

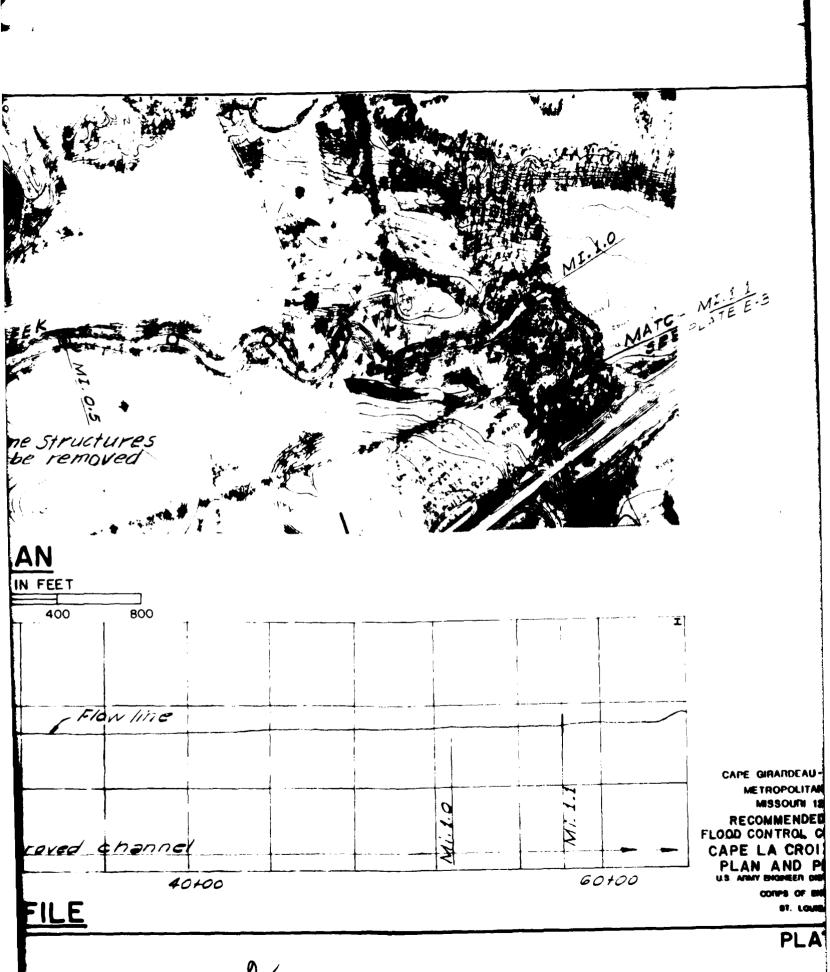
97 LOUIS, 80.

A CANADA A C









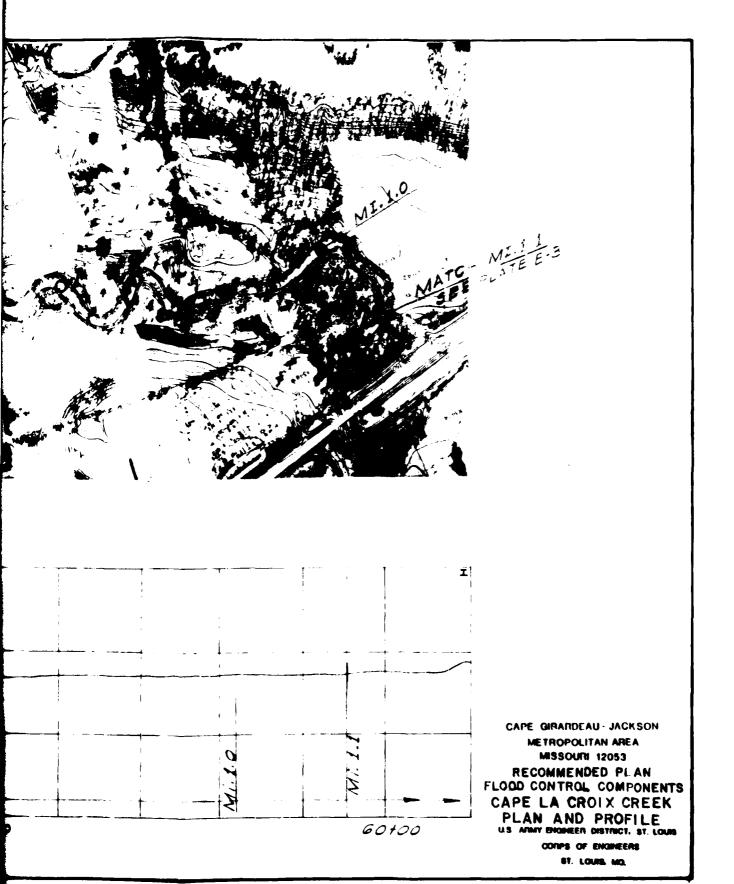
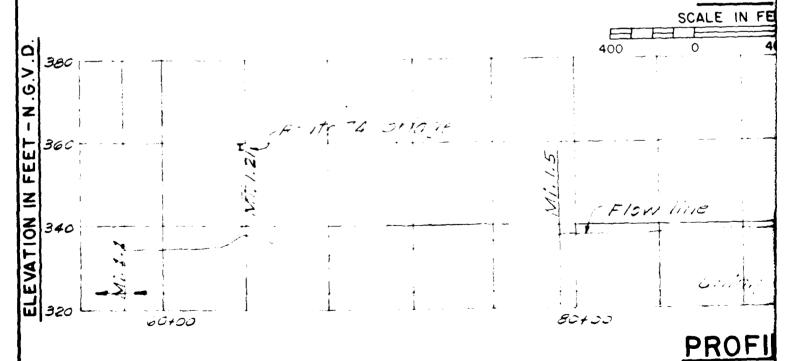


PLATE E-2



PLAN





PLAN

,

÷ -

FLOOD CI

PROFILE



120+00 120100

CAPE GIBALDEAU JACKSON METRIC FOLITAN AREA MISSOURI 12053 RECOMMENDED PLAN FLOOD CONTROL COMPONENTS CAPE LA CRO!X CREEK

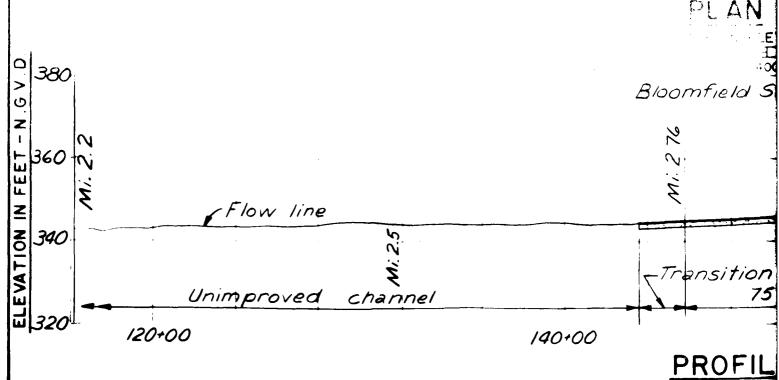
PLAN AND PROFILE

U.S. ARMY ENGINEER DISTRICT. ST. LOURS CORPS OF ENGRIEERS

ST LOURS MO.

PLATE E-3







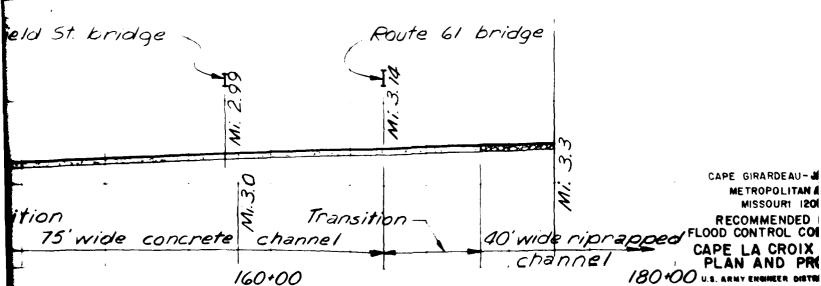
<u>PLAN</u>

CONCRETE CHANNEL EARTH CHANNEL RIPRAPPED CHANNEL

PROFILE

CONCRETE CHANNEL EARTH CHANNEL RIPRAPPED CHANNEL

FILE



CAPE GIRARDEAU-METROPOLITAN A MISSOUR1 120

RECOMMENDED

CAPE LA CROIX PLAN AND PRO

180400 U.S. ARMY ENGINEER DISTRI

CORPS OF ENGL ST. LOUIS &



PLAN

CONCRETE CHANNEL EARTH CHANNEL RIPRAPPED CHANNEL

PROFILE

CONCRETE
CHANNEL
EARTH
CHANNEL
RIPRAPPED
CHANNEL

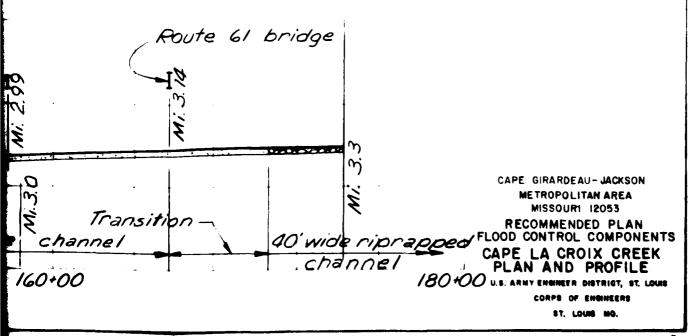
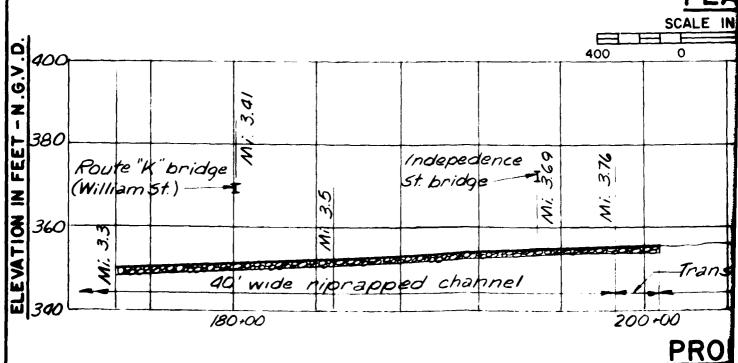


PLATE E-4

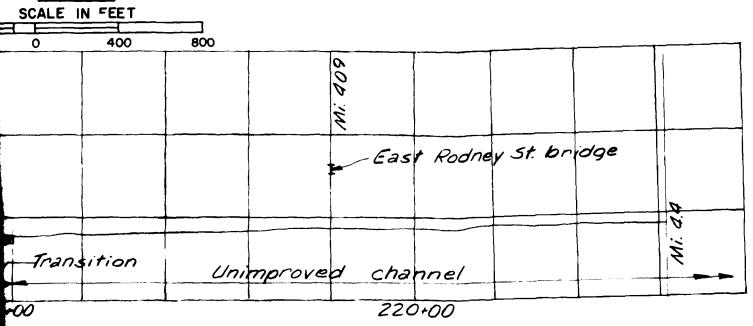






CONCECHANI
RIPRA
CHANI
PROFI
CONCECHANI
EART
CHANI
EART
CHANI
RIPRA
CHANI
RIPRA
CHANI

PLAN



RE LOOD CAPE PLA

PROFILE

2



PLAN

CONCRETE CHANNEL EARTH CHANNEL

RIPRAPPED CHANNEL

PROFILE

CONCRETE CHANNEL

EARTH CHANNEL

RIPRAPPED CHANNEL

.....

	400				T	
	21.0					
	2	-Eas	t Rodne	y St. br	idae	
						b.
rove	ď	cha	nne/			Mi.
	L	220	2+00	<u> </u>	L	

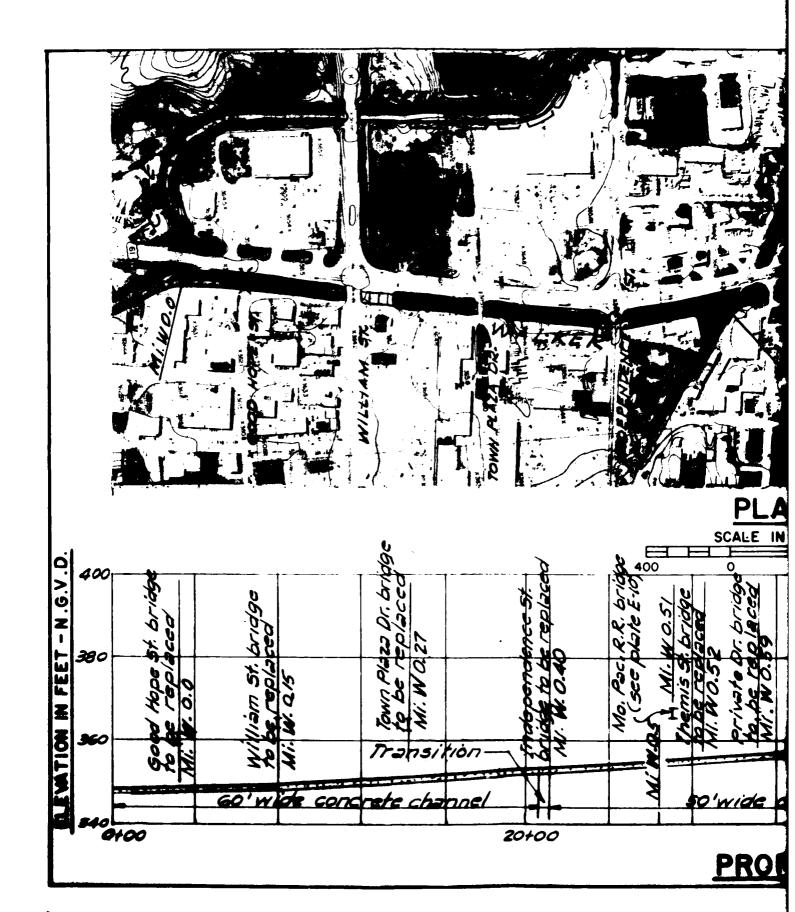
CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053 RECOMMENDED PLAN FLOOD CONTROL COMPONENTS CAPE LA CROIX CREEK PLAN AND PROFILE

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS

ST. LOUIS MO.

PLATE E-5

The second second





LEG

PLAN

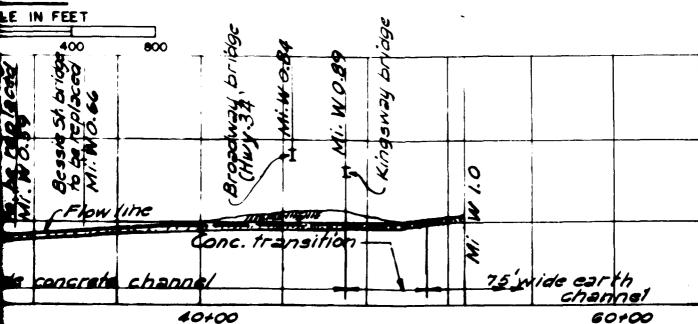
CONCRETE CHANNEL EARTH CHANNEL RIPRAPPED CHANNEL

PROFILE

CONCRETE CHANNEL EARTH CHANNEL

RIPRAPPE(CHANNEL

PLAN



CAPE GIRAGE
METHOD
MODEL
RECOUNTS
PLOCE CONTYN

OFILE

2.



PLAN

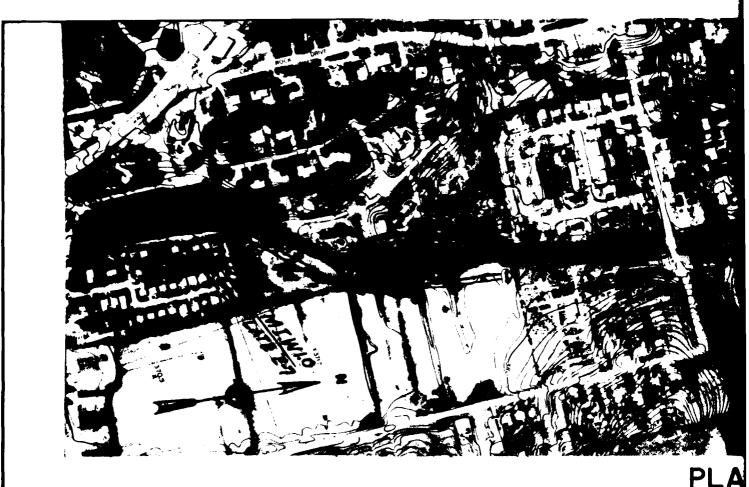
CONCRETE CHANNEL EARTH CHANNEL RIPRAPPED CHANNEL

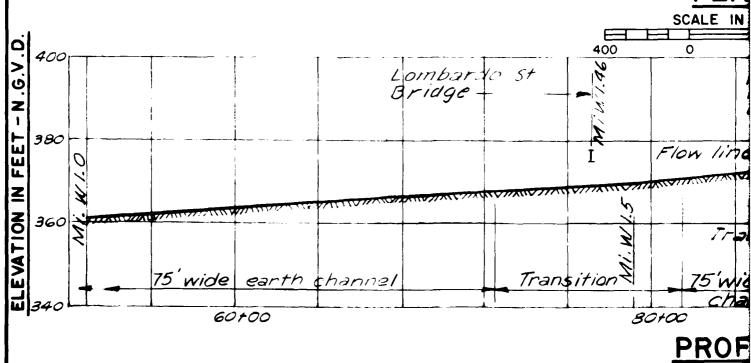
PROFILE

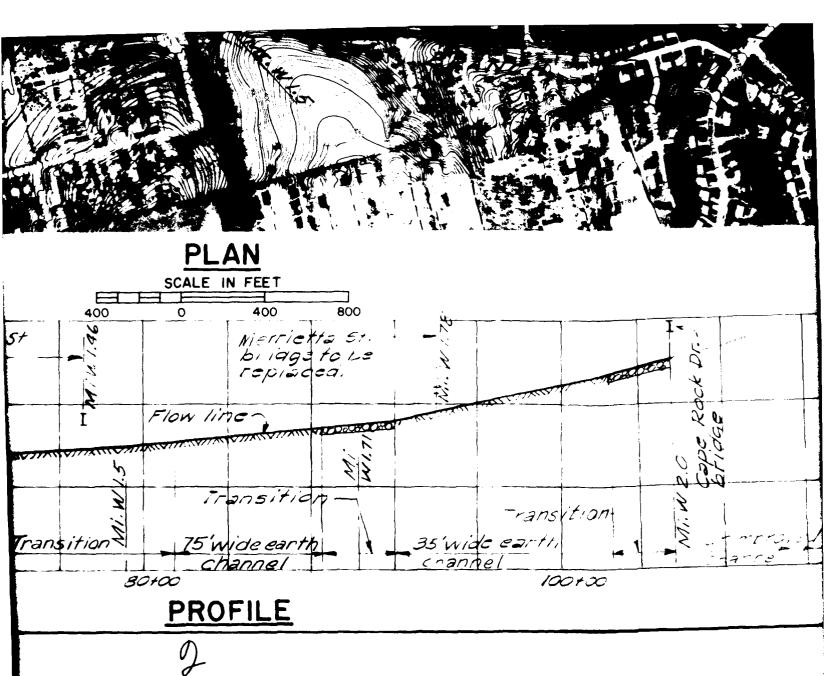
CONCRETE CHANNEL EARTH CHANNEL RIPRAPPED CHANNEL

Solve Remediate the solve of th

CAPE GIRARDEAU-JACKSON
METROPOLITAN AREA
MISSOURI 10045
RESCRIPTION OFFICE
PLAN
PLACE CONTTON, COMPANIENTS
WALKER MARKETALE
PLAN AND PROPPLIE
15 COMPANIENTS
COMPA









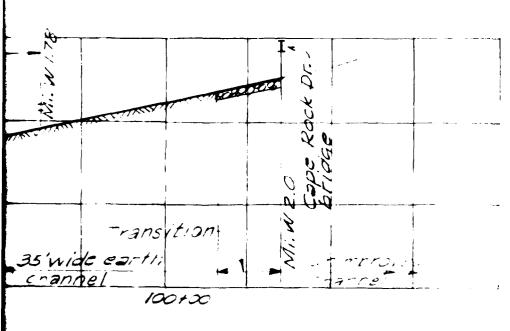
PLAN

CONCRETE CHANNEL EARTH CHANNEL RIPRAPPED CHANNEL

PROFILE

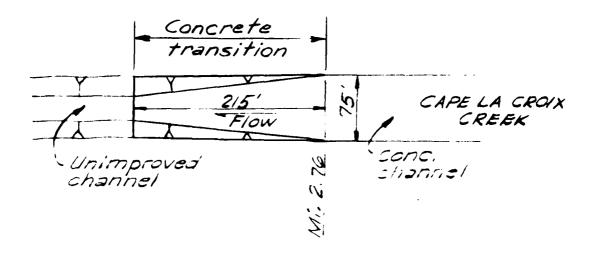
CONCRETE CHANNEL EARTH CHANNEL RIPRAPPED CHANNEL

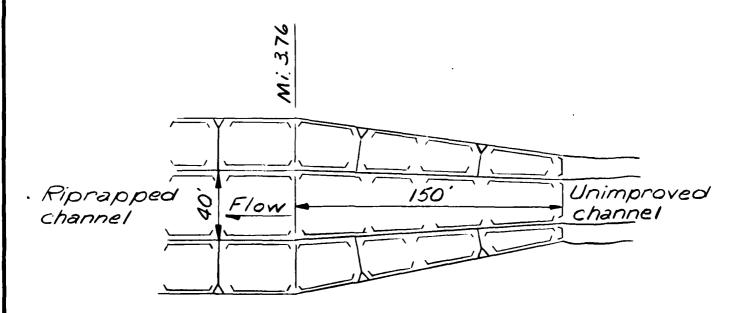
ISIBIBIEI



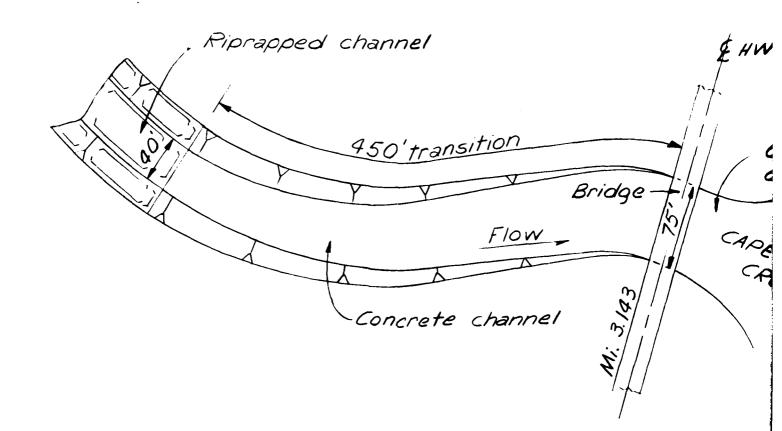
CAPE GIRARDEAU-JACKSON
METROPOLITAN AREA
MISSOURI 12053
RECOMMENDED PLAN
FLOOD CONTROL COMPONENTS
WALKER BRANCH
PLAN AND PROFILE
US ARMY ENGINEER DISTRICT, ST. LOUIS

COMPS OF ENGINEERS ST. LOUIS. MO.

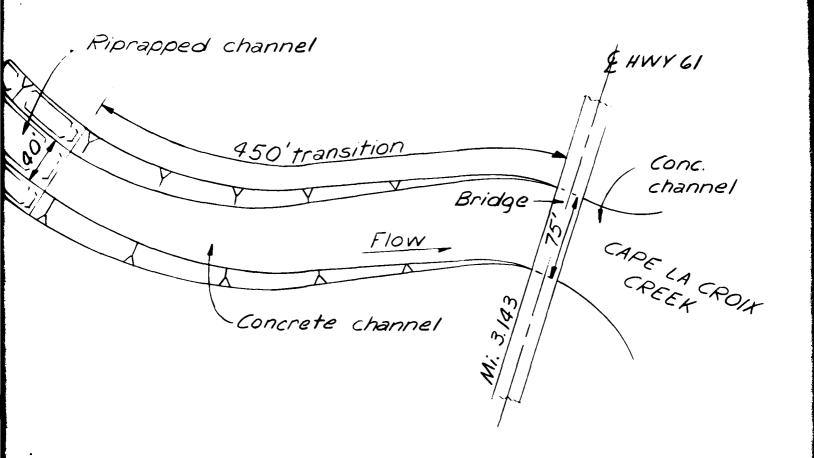




TRANSI No sc

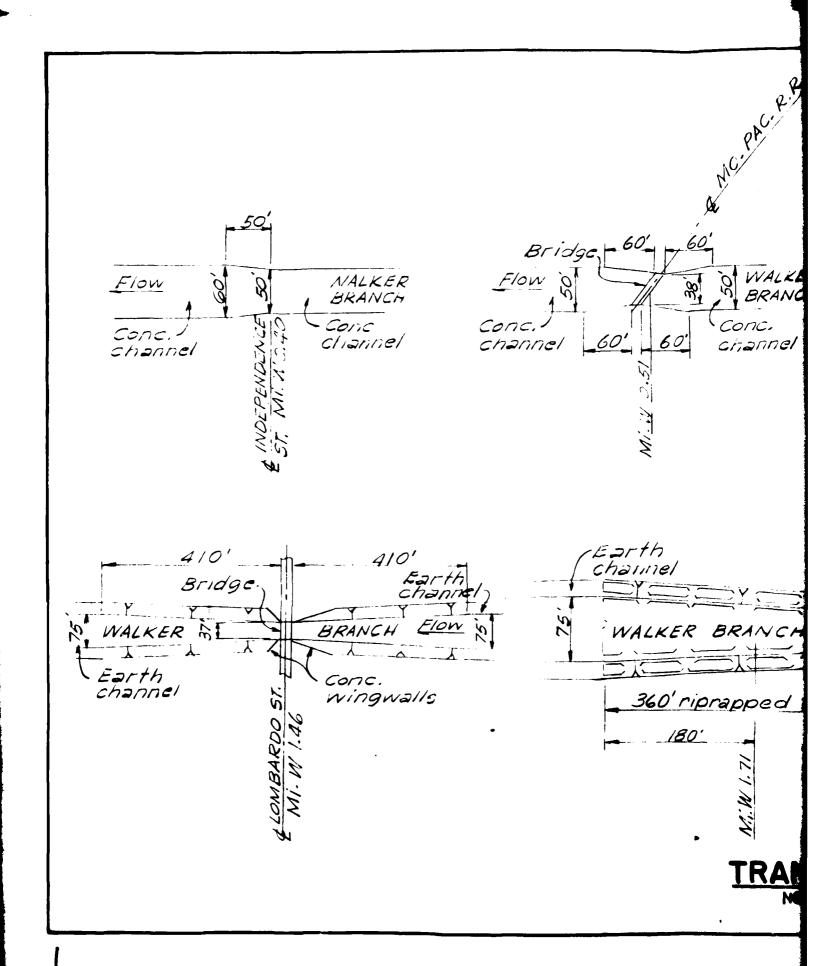


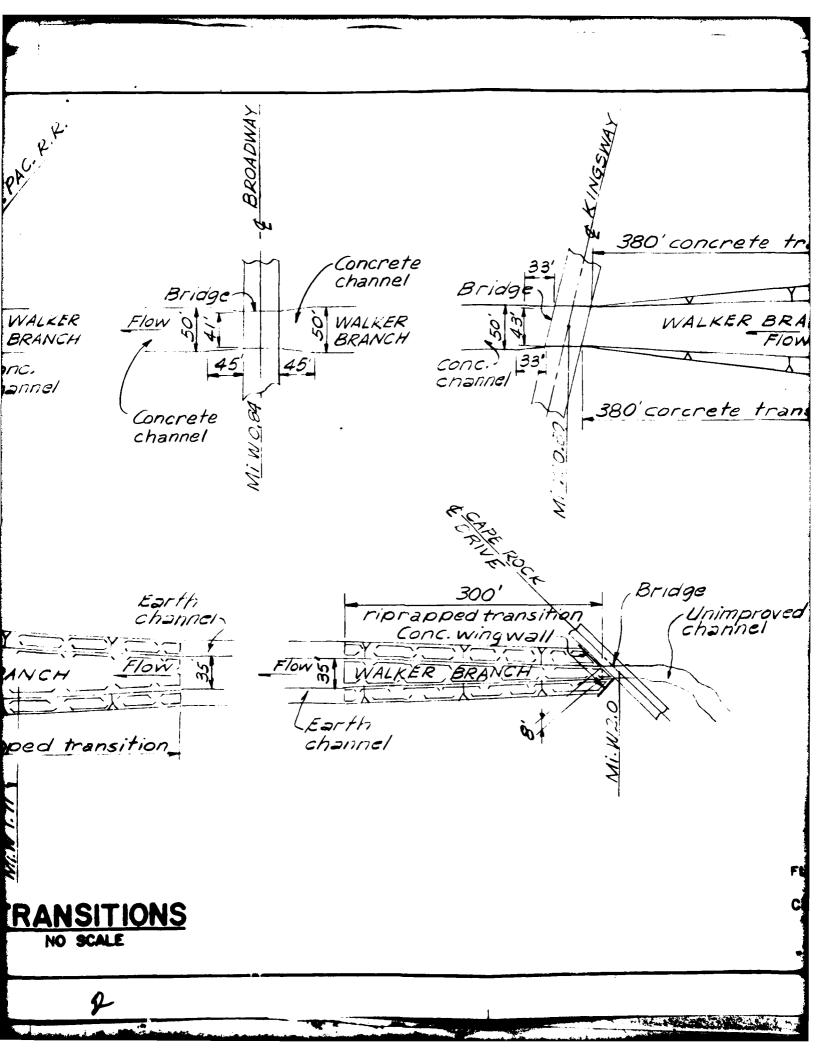
SITIONS SCALE CA

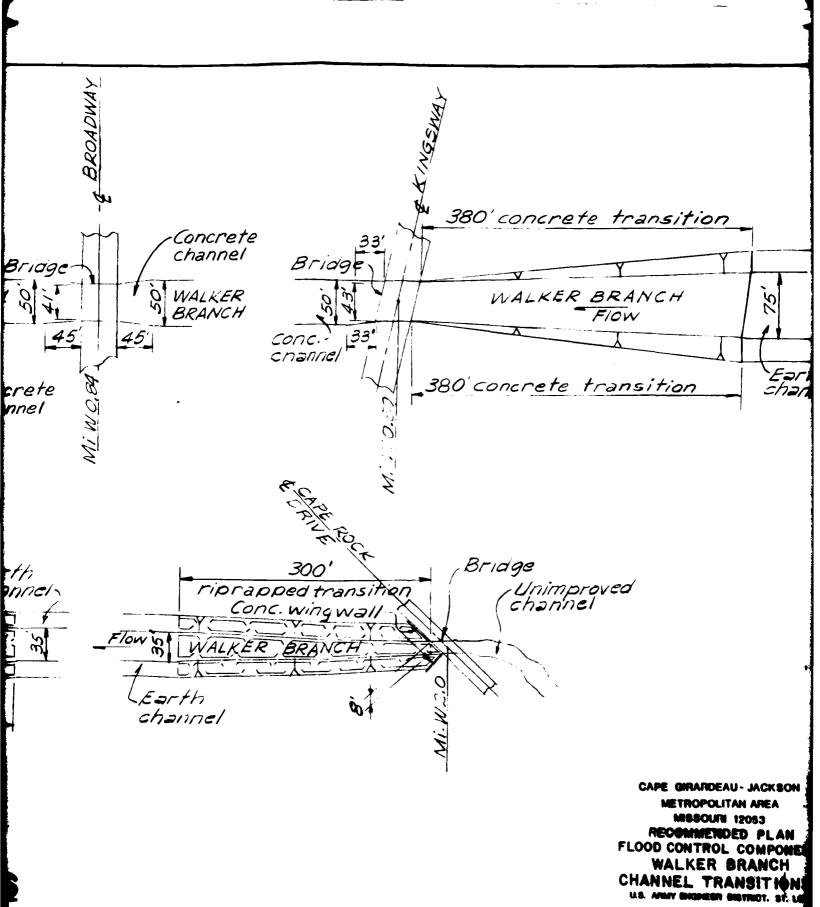


CAPE GIRARDEAU-JACKSON
METROPOLITAN AREA
MISSOURI 12063
RECOMMENDED PLAN
FLOOD CONTROL COMPONENTS
CAPE LA CROIX CREEK
CHANNEL TRANSITIONS
U.S. ARMY GROWNER AMPTRICE, ST. LOWE
60079 OF STREMESTRE

ST. LANS III.

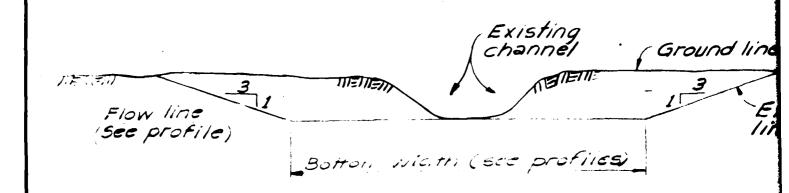




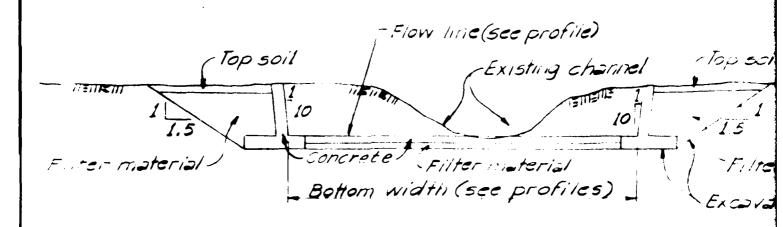


87. LOUIS MO.

PLATE E



EARTH CHANNEL



CONCRETE CHANNEL

TYPICAL CHANNEL SECTIONS NO SCALE

Excavation line

Filter mater, al

Acavation line

Ground line Bedding

Flow

Z.5

Bottom width

(see profile)

FLOOI T

W.E.

12

Ground line

Bottom width

(see profile)

Riprap on
bedding material

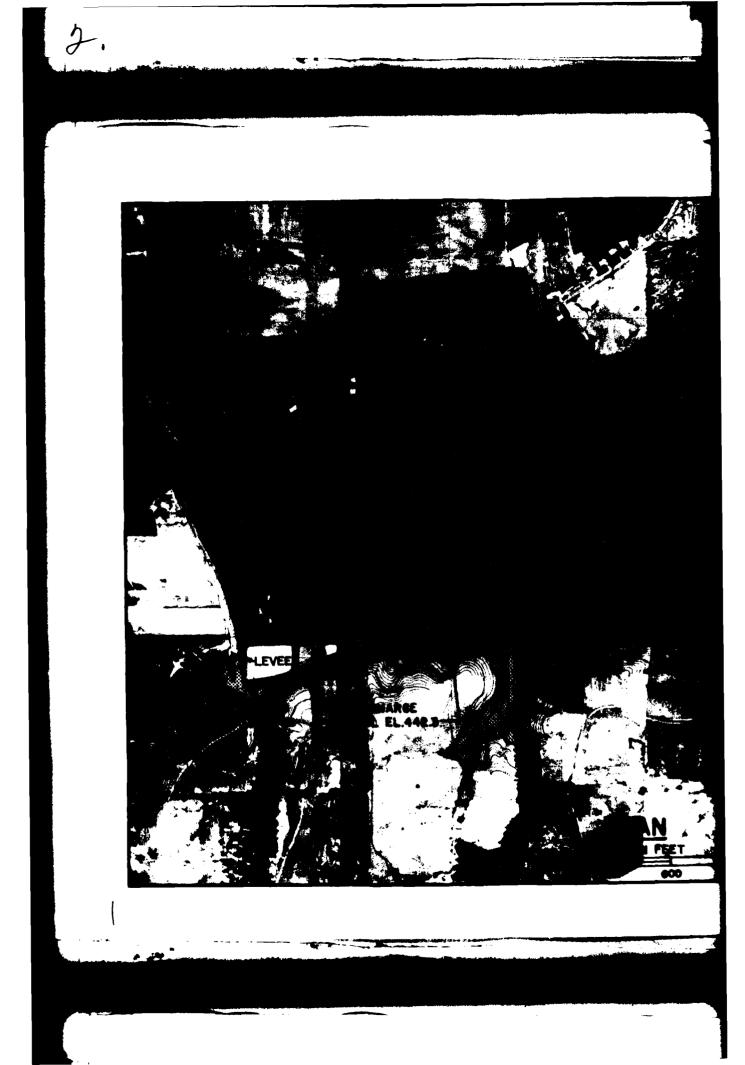
Flow line
(see profile)

11.0 mm

CAPE GRARDEAU-JACKSON
METROPOLITAN AREA
MESOURI 12663
RECOMMENDED PLAN
FLOOD CONTROL COMPONENTS
TYPICAL CHANNEL
SECTIONS
US. ANNY ENDERSON DISTRICT. ST. LOUIS

A STATE OF THE STA

PLATE E-





UPSTREAM

Top of dain-el. 446.30

Top of Surcharge Pool-el. 442.3

Locate

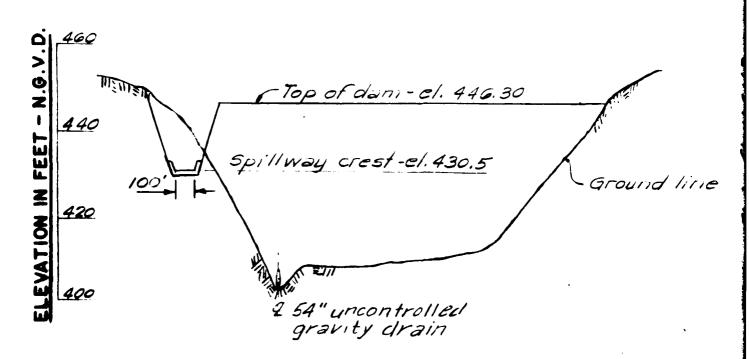
Comparate in pedding

Material

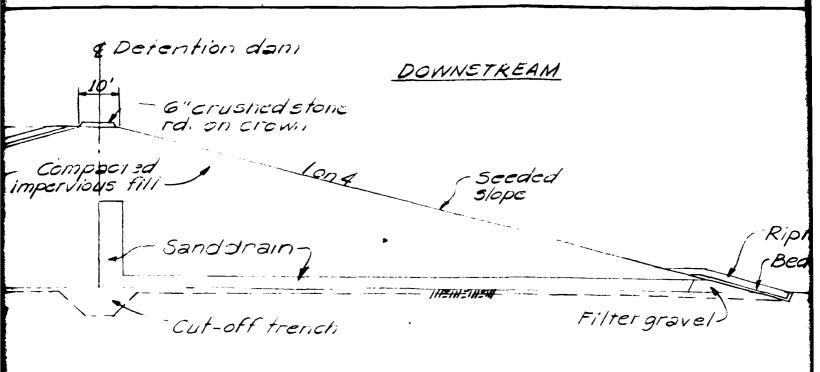
Ground line

Foundation stripping

DETENTION

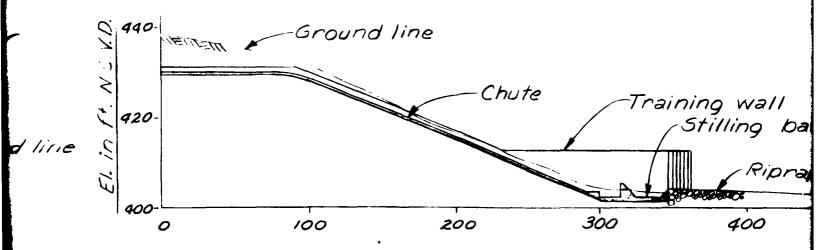


DETENTION DAM PROFILE



NTION DAM-TYP SECTION

NO SCALE

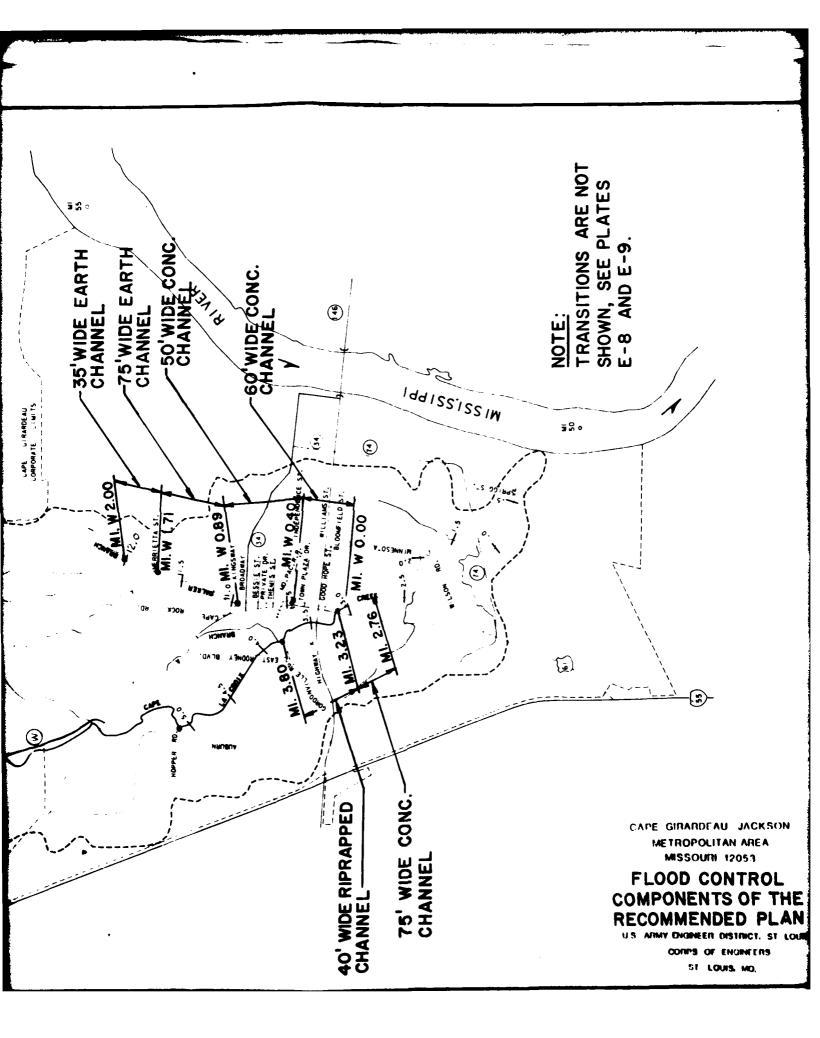


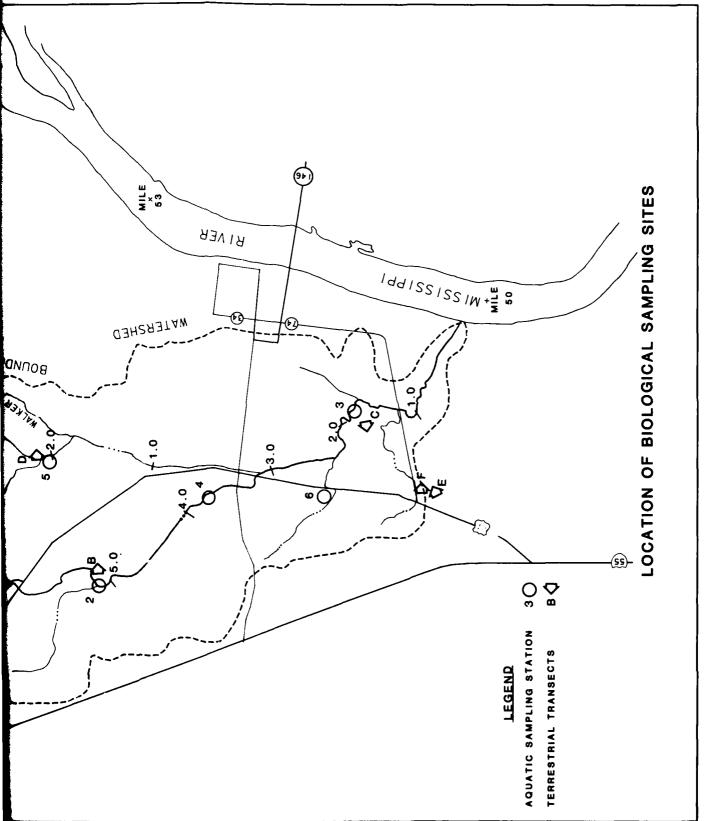
SECTION THRU SPILLWAY

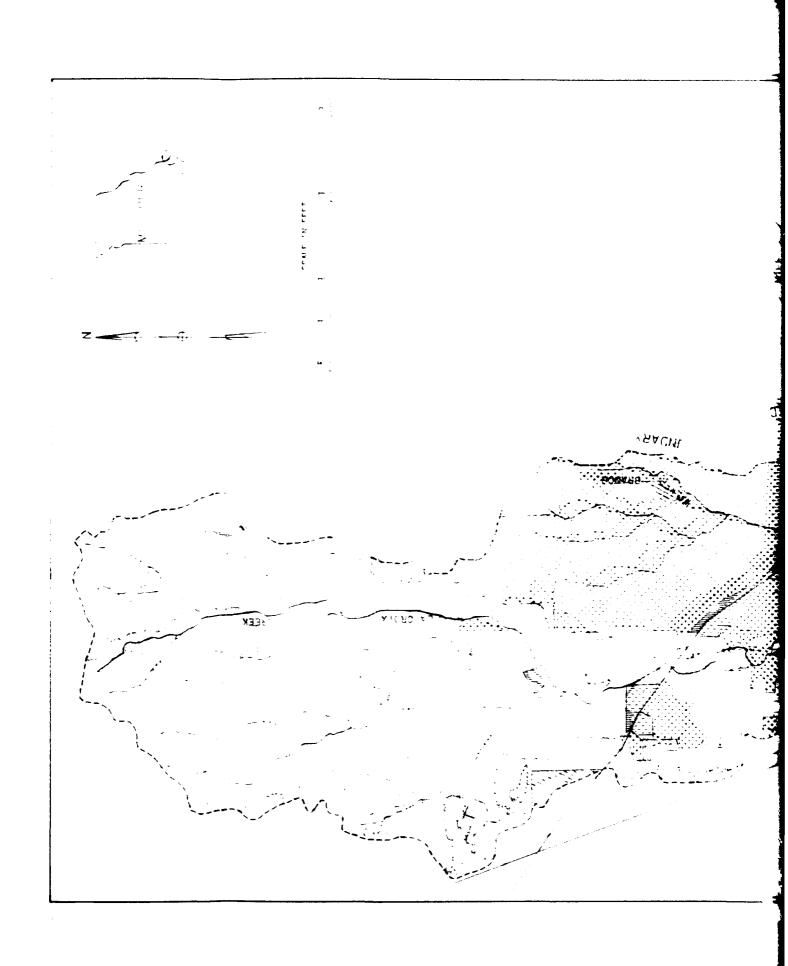
NO SCALE

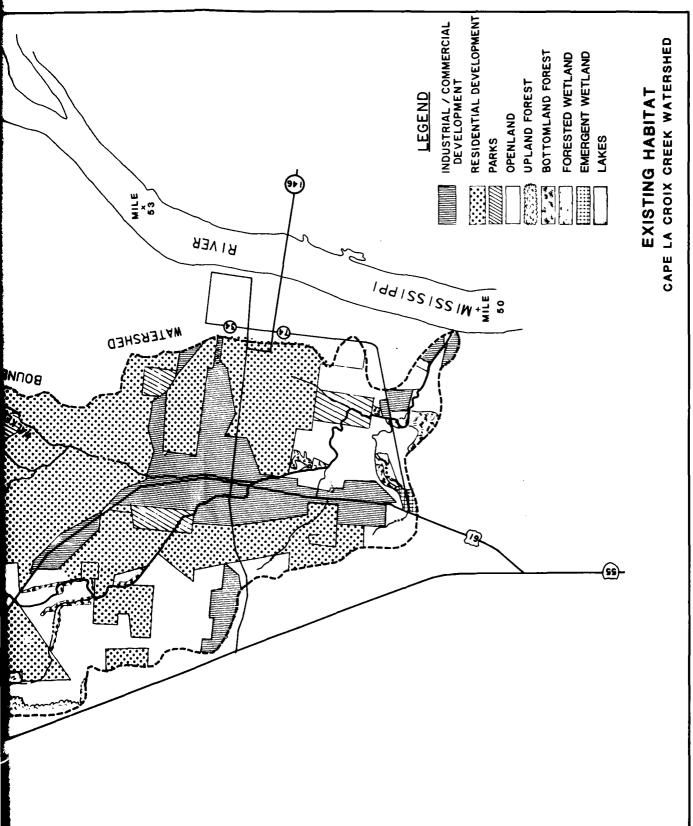
n dani DOWNSTREAM isned stone leng Seeded 5/ope Riprap drain-Bedding material 1/12/11/21/12/1 1115/15/113 Filter graveloff trench YP. SECTION Ground line Chute Training wall Stilling basin Riprap 300 500 400 200 100 CAPE GIRARDEAU - JACKSON METROPOLITAN AREA DETENTION DAM PROFILE AND SECTION SECTION THRU SPILLWAY NO SCALE PLATE E-12

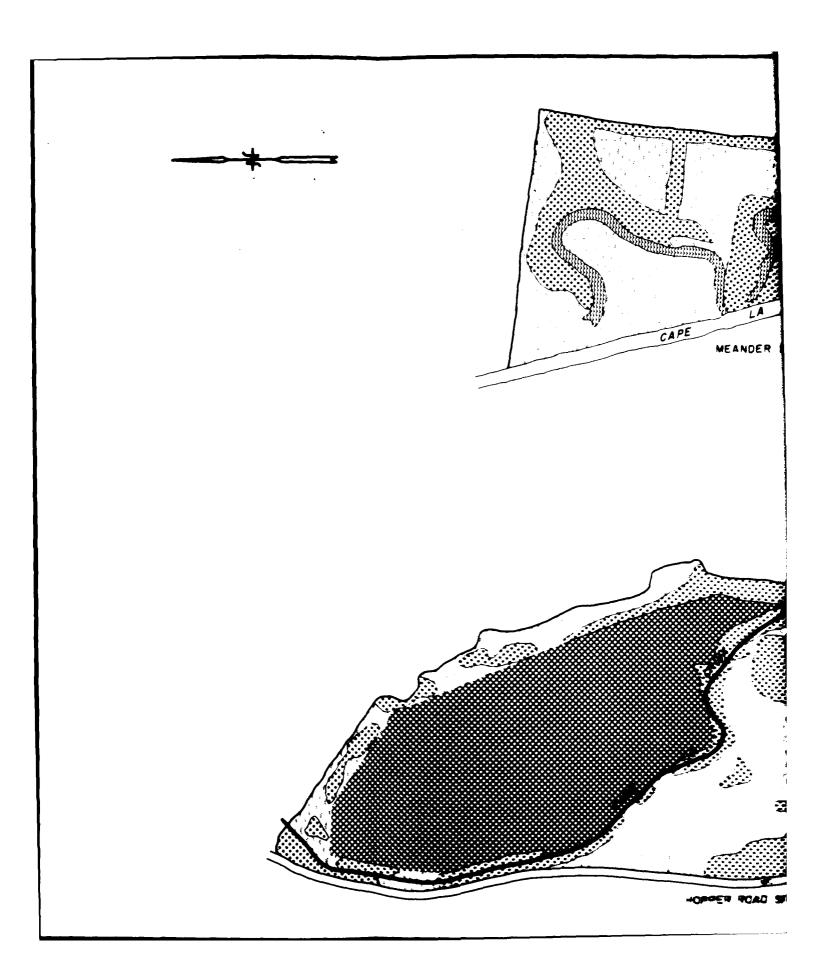
35'WIDE EARTH -75'WIDE EARTH CHANNEL 9'17'5'S A DETENTION

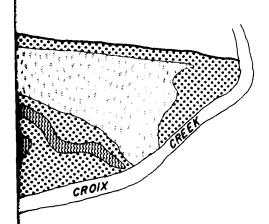












SITE



LEGEND

OPENLAND - OLD FIELD

BOTTOMLAND FOREST

CUTOFF MEANDERS

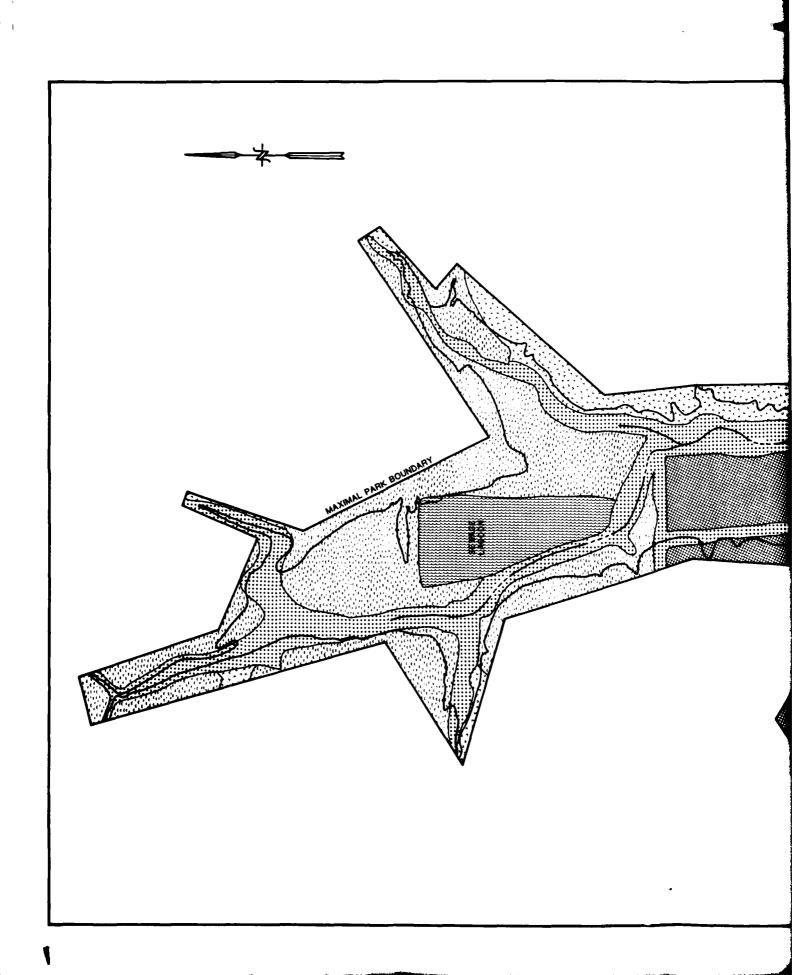
OPENLAND - ROW CROPS

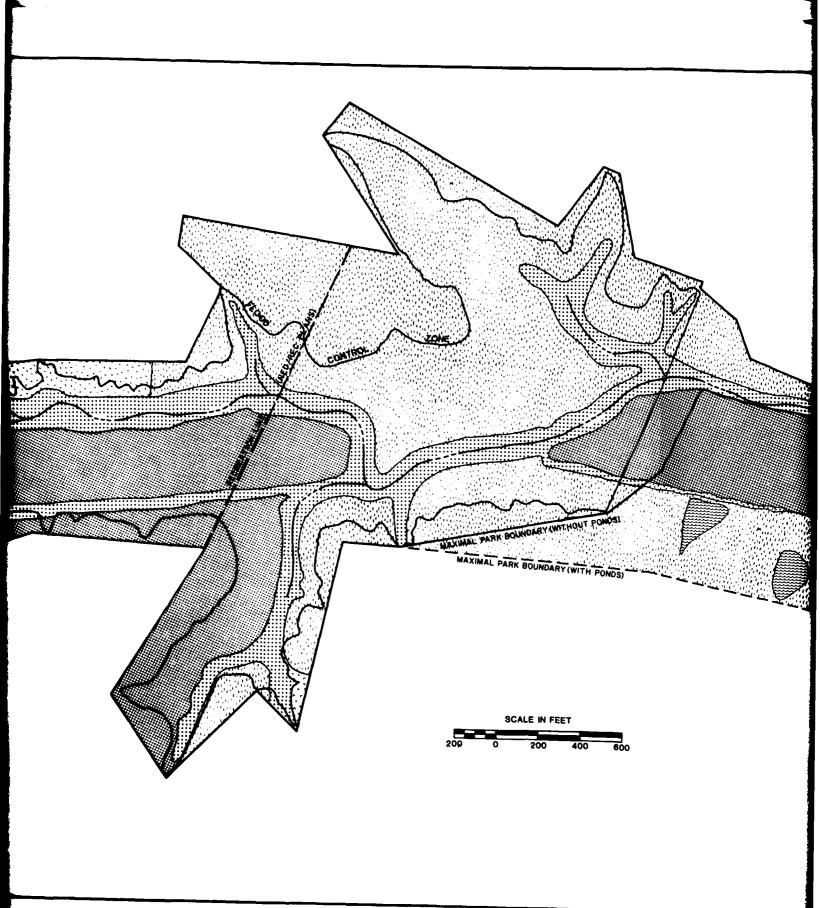
SCALE IN FEET

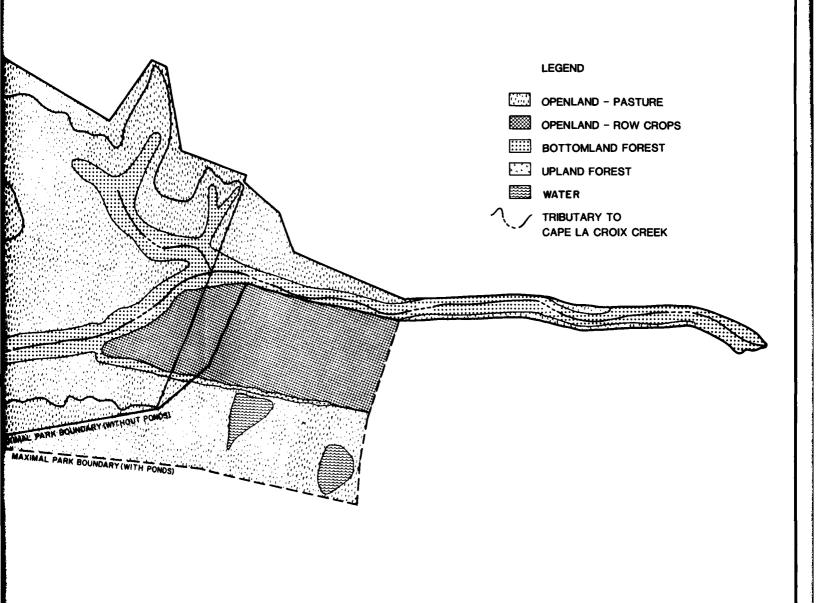
CAPE GIRARDEAU-JACKSON METROPOLITAN AREA MISSOURI 12053

EXISTING HABITAT-MEANDER AND HOPPER ROAD SITE

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS, MO





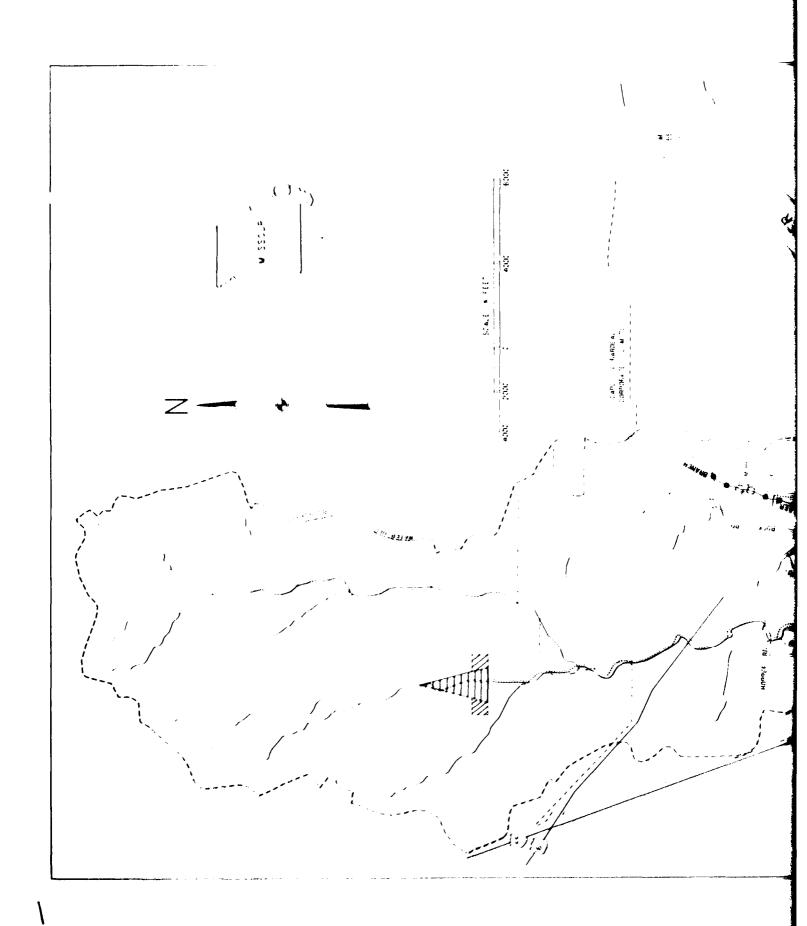


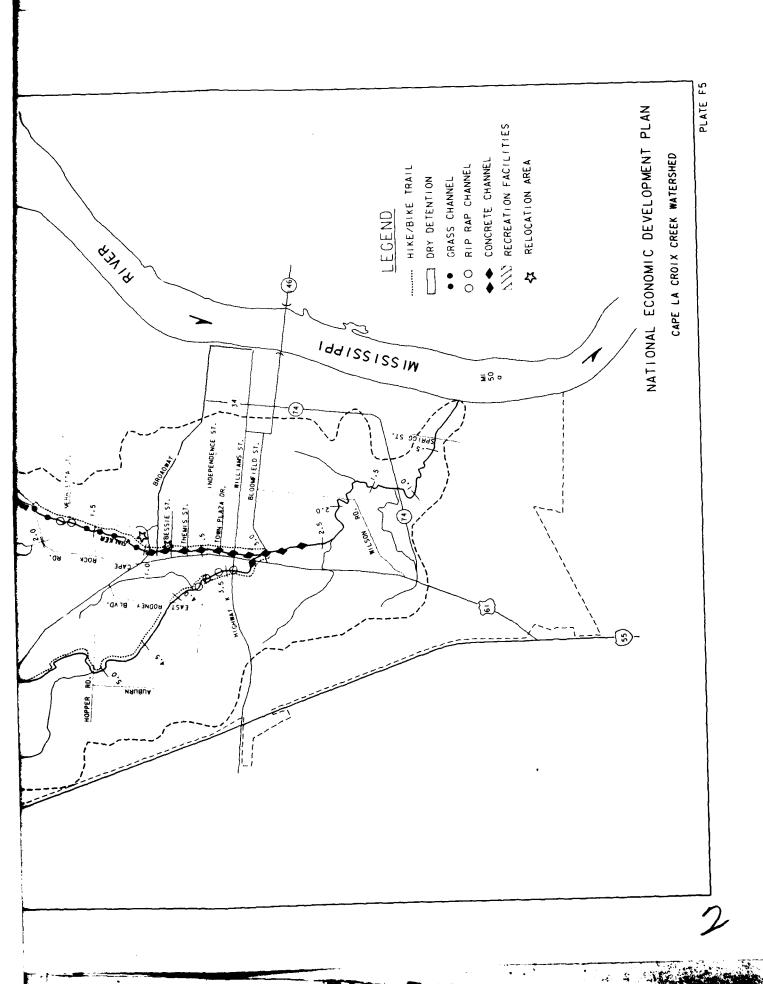
SCALE IN FEET

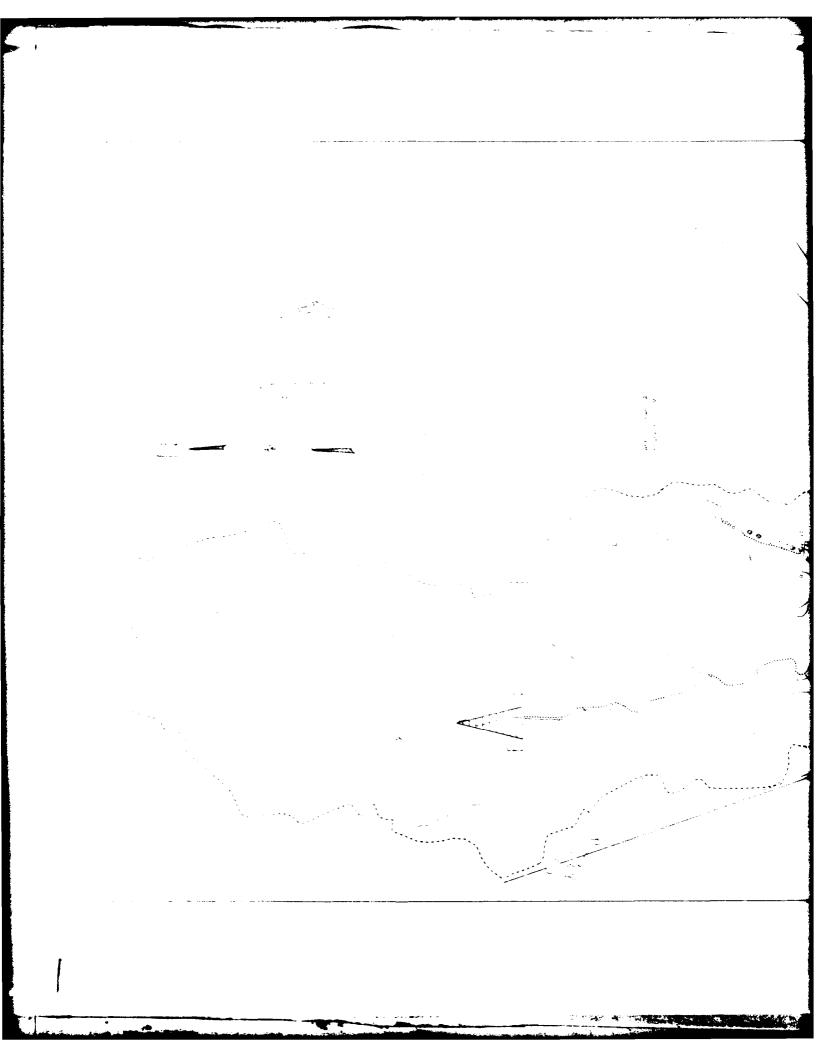
CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI 12053

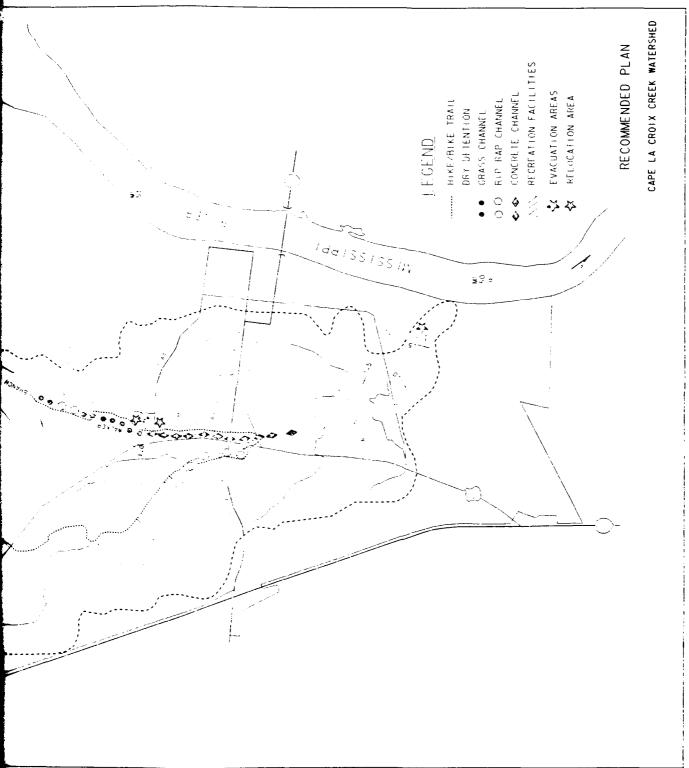
EXISTING HABITAT DETENTION SITE

U.S. ARMY ENGINEER DISTRICT, ST. LOUIS CORPS OF ENGINEERS ST. LOUIS- MO.









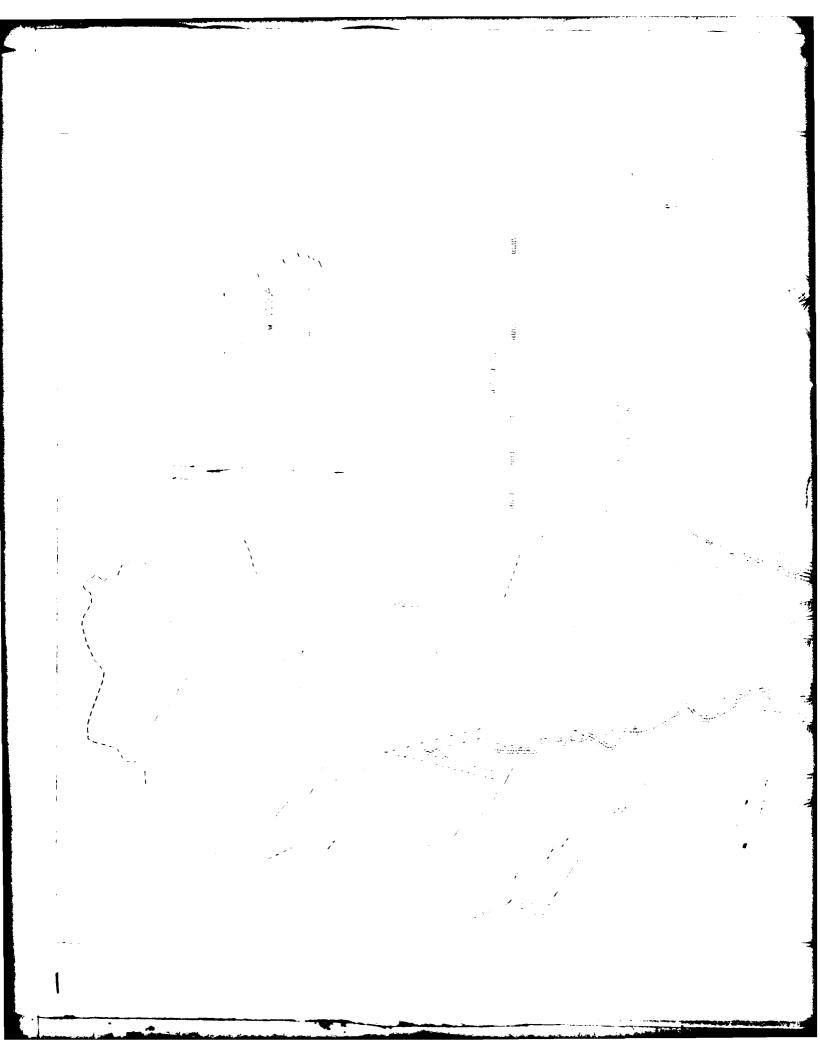


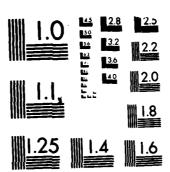
PLATE F7

MATER RESOURCES INVESTIGATION CAPE GIRARDEAU - JACKSON METROPOLITAN AREA MISSOURI VOLUME 3 PLATES(U) ARMY ENGINEER DISTRICT ST LOUIS MO DEC 83

JNCLASSIFIED

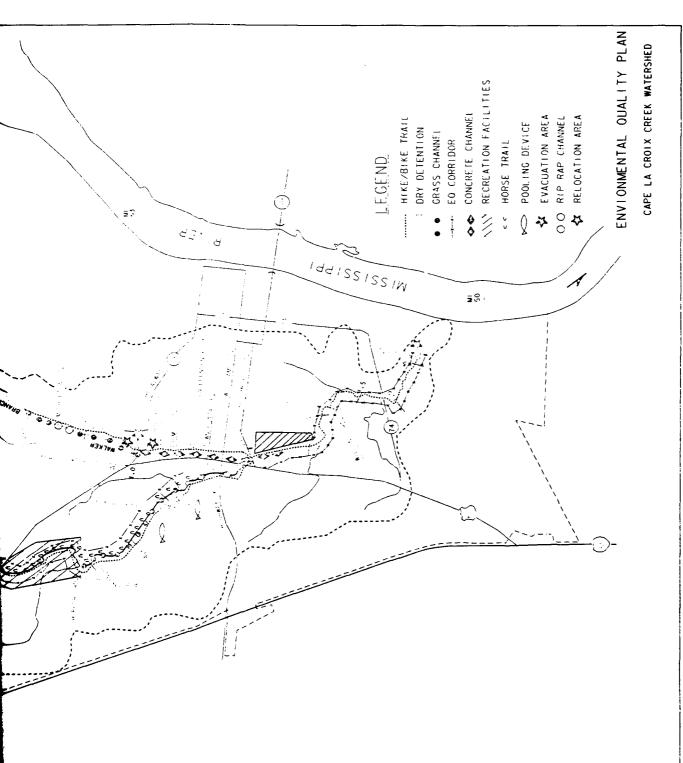
FIG. 13/2

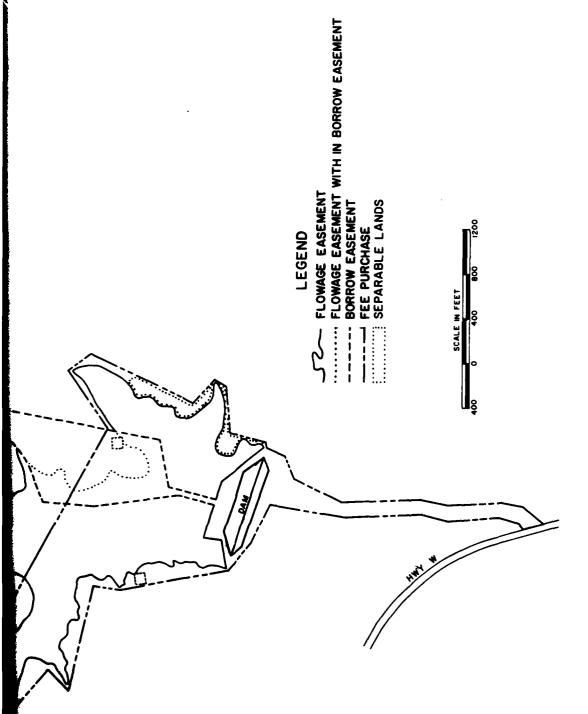
ANT. PART. PART.



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963 A

'

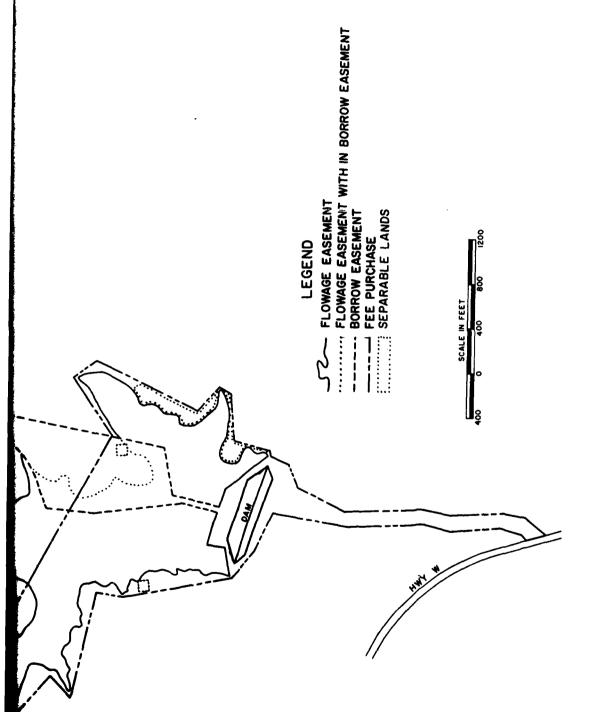




RECOMMENDED PLAN
DETENTION SITE I
LAND ACQUISITION

CAPE LA CROIX CREEK WATERSHED

2



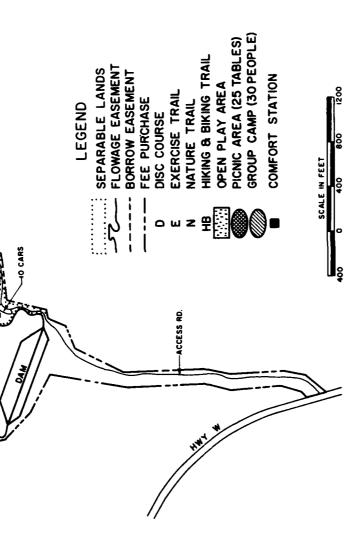
RECOMMENDED PLAN
DETENTION SITE I
LAND ACQUISITION

CAPE LA CROIX CREEK WATERSHED

1

PLATE F-10

RECOMMENDED PLAN
DETENTION SITE I
RECREATION PLAN



PICNIC AREA

GROUP CAMP

-25 CARS

RECREATION PLAN
CAPE LA CROIX CREEK WATERSHED

CAPE LA CROIX CREEK WATE

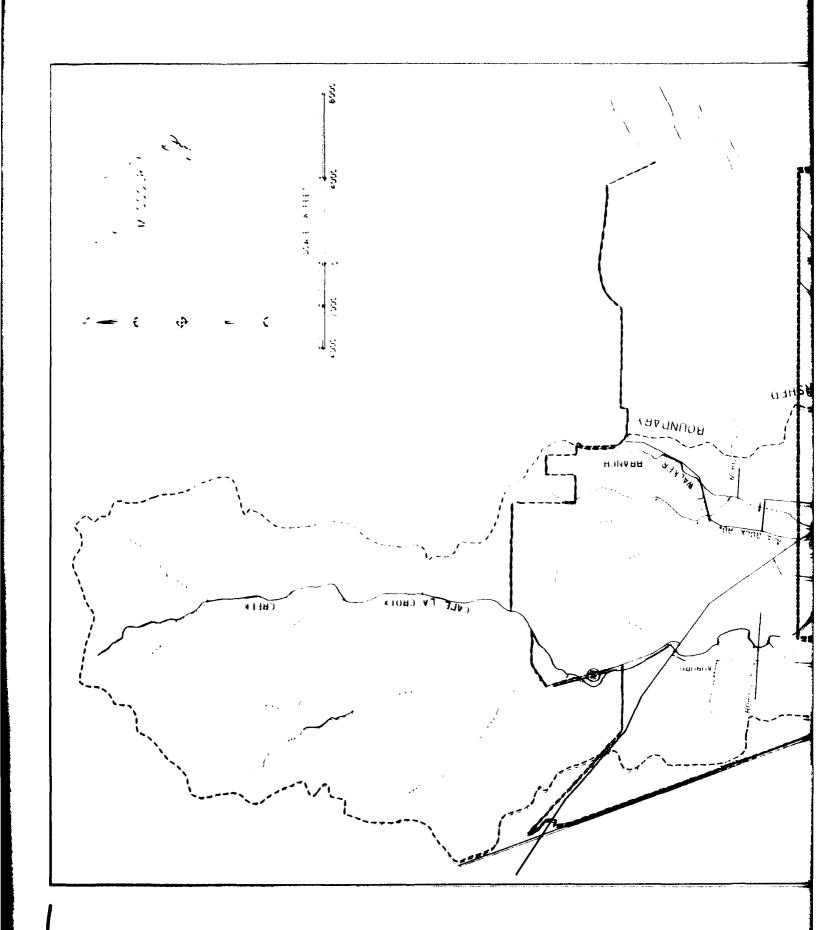


PLATE I-1

THE REPORT OF THE PARTY OF

